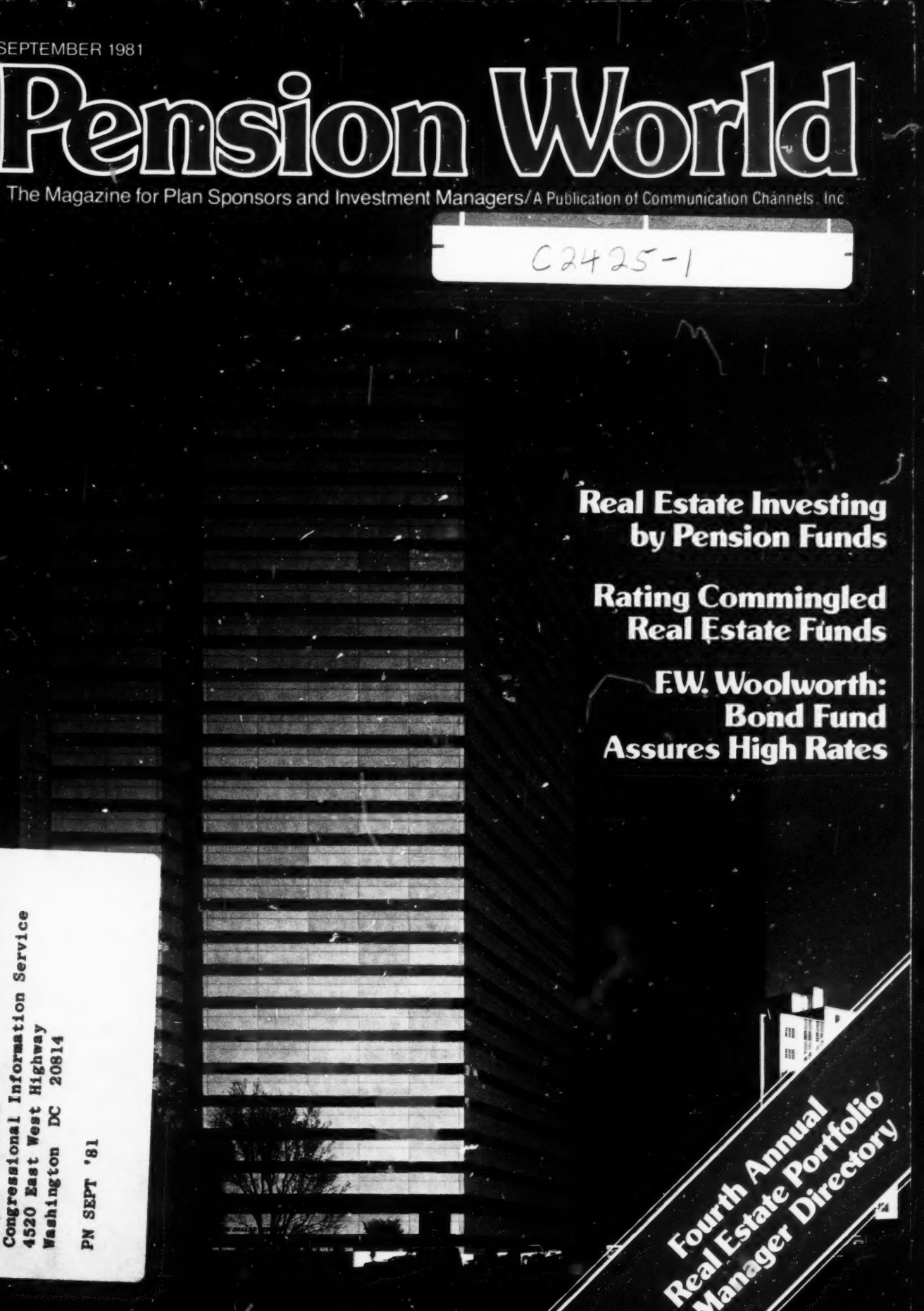
SEPTEMBER 1981

Pension World

The Magazine for Plan Sponsors and Investment Managers/A Publication of Communication Channels, Inc

C2425-1



Real Estate Investing by Pension Funds

Rating Commingled Real Estate Funds

F.W. Woolworth: Bond Fund Assures High Rates

Fourth Annual Real Estate Portfolio Manager Directory

Congressional Information Service
4520 East West Highway
Washington DC 20814

PN SEPT '81

Pension World

September 1981
Volume 17 Number 9

The Magazine for Plan Sponsors and Investment Managers/A Publication of Communication Channels, Inc.

Features

Real estate investing by pension funds 15
Money Market Directories, inc., releases its latest figures on plan sponsor interest in real estate.

Rating commingled funds by William O. Brachman 25
An authority on the subject points out what to look for when shopping for the right real estate commingled fund.

F. W. Woolworth immunizes liabilities with bond fund by Ronald Derven 42
Enhanced by a dedicated bond program to pay older retirees, this century old, multinational retailer runs a $220 million benefits portfolio with a conservative balance.

On pension funds and real estate by Charles D. Ellis 56
The breadth of demand for real estate is extraordinary, according to the president of Greenwich Research Associates. However, several critical factors must be addressed by pension funds ready to dip their toes into the market.

A view through the eyes of a property manager by Fred Halperin 69
Every investment property has specific areas that can enhance the total value. Here, Coldwell Banker Real Estate Management Services' general manager sizes up four property categories.

4th Annual Real Estate Portfolio Manager Directory 83
Pension World's exclusive listing of real estate portfolio managers includes the names of more than 75 firms currently handling pension funds, plus their returns on investment, participation offered, fees, and more.

What Every Fiduciary Should Know: UBIT — the pension fund dilemma 98
by Seymour Zilberstein and Jeffrey D. Mamorsky
Both real estate and pension professionals have raised questions about the unrelated business income tax. This treatment of that subject is authored by two panelists from *Pension World* and *National Real Estate Investor*'s June conference.

Net-leased properties for pension funds by Jere S. Feldman 101
This kind of investment may offer rewards to those looking for missed opportunities in a particular property class that is being trampled by the herd.

Laying the groundwork with total benefits planning — Part I by Ronald Derven 104
As benefits are altered to conform to employees' changing demands and needs, employers are showing renewed interest in flexible setups.

Pension World Basics: Securities lending by pension funds by Lynn Strasbaugh 118
Since pension funds are relatively new to the securities lending game, this straightforward article by a financial consultant defines the industry and shows its advantages — and pitfalls.

Departments

Guest Editorial	4	**Washington Newsletter**	10	**Meetings & Conventions**	115
Letters to the Editor	6	**Pension News**	109	**Pension Resources**	117
International Pension World	8	**Pension People**	114	**Arbitration Awards**	123

***Cover:* The real estate industry's interest in pension funds is as sharp as the outline of this Dallas landmark. Is the attraction mutual? *Pension World*'s coverage begins on page 15.**

Cover Photo: One Dallas Centre, Dallas, Texas. Vincent A. Carrozza, Developer. Architectural Design by Henry Cobb, I. M. Pei & Partners.

Photo ©1981 Wes Thompson. Used by permission.

VBPA

ISSN 0098-1753

Pension World is published monthly by Communication Channels, Inc., Tim Gold Blyth, Chairman of the Board; B.J. Kotsher, President; Russell Richards, Secretary; John Moebius, Treasurer. Editorial and advertising offices at 6285 Barfield Road, Atlanta, GA 30328. Telephone (404) 256-9800. *Pension World* is a registered trademark of Communication Channels, Inc.

© 1981 by Communication Channels, Inc.

Second class postage paid at Atlanta, GA, and at additional mailing offices. Subscription rates: U.S.A.: 1 year, $34; 2 years, $59; Canada and Mexico, 1 year, $37; Foreign, 1 year, $42. Single copies, $3.00. The opinions expressed by authors and contributors to *Pension World* are not necessarily those of the editors or publisher. Articles appearing in *Pension World* may not be reproduced in whole or in part without the express permission of the publisher. Microfilm copies of *Pension World* are available from University Microfilms, 300 North Zeeb Road, Ann Arbor, MI 48106. Postmaster: Please send form 3579 to Circulation Department, *Pension World*, 6285 Barfield Road, Atlanta, GA 30328.

Survey

Real estate investing by pension funds

In June, 1981, Money Market Directories, Inc., distributed real estate questionnaires to the senior investment officers of the 1,200 largest corporate and government pension plans. Two hundred five completed questionnaires were returned, for a response rate of 17 percent. Unless otherwise indicated, the percentages given in the survey are based on those 205 responses.

Forty-four percent of the respondents currently own real estate and commingled real estate equity investments amounting to $2.3 billion, an average of $25.5 million per fund. This real estate ownership, as a percentage of portfolio assets, works out to 5.8 percent, an increase of 1.7 percent over last year's sample. In addition to real estate equity ownership, 31 percent have financed real estate by making $3.1 billion in mortgage and construction loans.

Within the next three years, our respondents plan to purchase real estate equities amounting to $3.2 billion. These purchases will be almost equally divided between individual real estate equity purchases and real estate commingled funds. One hundred twelve organizations, or 55 percent of our sample, plan to make these investments.

Of the 112 organizations, 99 are private pension funds who plan to invest $2.3 billion; the other 13 are government plans. From these figures, we estimate that the total private pension commitment to real estate over the next three years will be $13 billion. In last year's survey, we estimated that real estate holdings by corporate pension funds would increase at a rate close to $4 billion a year. This year's responses reflect that actual real estate ownership grew between $3 to $4 billion during the last 12 months.

Perhaps the most significant finding of this 1981 survey is the dramatic increase in the amount of assets that government pension plans (state and local governments) report will be invested in real estate equities. Currently, eight government funds in our sample, with assets of $6 billion, own only $84 million in real estate. But during the next three years, 13 government funds in the response group indicate they are planning to invest an additional $877 million in real estate equities. This would represent an increase in real estate ownership of over 1000 percent in our sample group.

The *1981 Money Market Directory* identified $186 billion as the total of state and local government pension assets. Of this, less than one-half of 1 percent, or $692 million, is currently invested in real estate. This low percentage of real estate ownership nearly duplicates the percentage of real estate ownership reported in our sample group. If we apply the ten-fold expected real estate increase in our sample group to this $692 million in real estate currently owned by all governments, we could conclude that nearly $7 billion in new real estate investments will be made by state and local governments during the next three years.

In view of this surprising figure, Money Market Directories discussed the intentions of these government funds with real estate professionals who have contact with them. The consensus was that while the intention to direct huge amounts of government fund assets to real estate is valid, there are factors that may prevent the actual sum from being quite as large as indicated.

Many government funds are prevented by state law from investing in real estate outside their state, which limits their participation in commingled funds that are diversified regionally or nationally. Also, local government funds will want to keep their investments near their locality, which puts them at a disadvantage in finding suitable prime properties. Consequently, our analysis is that, although government investments in real estate will increase significantly, they will not increase as rapidly as initially indicated by the survey.

Total pension fund assets are projected to increase from slightly over $600 billion currently, to over $2.5 trillion by 1995. We were interested in how today's pension fund investment officers think those assets will be invested 14 years from now. Following is the consensus of their estimates.

$ in Billions	Percent
$1,225	49% stocks
575	23% fixed income
150	6% international investments
150	6% real estate
150	6% real estate commingled funds
125	5% mortgages
50	2% venture capital
25	1% collectables and precious metals
50	2% other
$2,500 billion	100%

The actual results of our 1981 real estate survey are presented in the following tables.

Do you regard real estate investments as an effective inflation hedge?

	1975	1976	1977	1980	1981
Yes	80%	62%	67%	86%	83%
No	15%	36%	29%	8%	11%
Did not answer	5%	2%	4%	6%	6%

Do you regard real estate investments as being capable of contributing consistency to your fund's performance?

	1975	1976	1977	1980	1981
Yes	71%	59%	59%	77%	83%
No	23%	39%	37%	18%	10%
Did not answer	6%	2%	4%	5%	7%

What would you regard as the minimum acceptable net cash yield to the fund from real estate equity investments?

	1975	1976	1977	1980	1981
Specified a minimum of 7%	5%	17%	21%	11%	18%
Specified a minimum of 8%	20%	15%	18%	13%	20%
Specified a minimum of 9%	22%	15%	17%	14%	11%
Specified a minimum of 10%	17%	21%	17%	17%	19%
Specified a minimum in excess of 10%	13%	13%	9%	21%	26%
Did not ánswer	23%	19%	18%	24%	6%

What would be your minimum expectation for annual appreciation from real estate equity investments?

	1975	1976	1977	1980	1981
Identified 2% appreciation as the minimum acceptable rate	23%	12%	9%	3%	1%
Identified 3% appreciation as the minimum acceptable rate	26%	18%	12%	4%	5%
Identified 4% appreciation as the minimum acceptable rate	16%	9%	6%	6%	8%
Identified 4 + % appreciation as the minimum acceptable rate	17%	37%	48%	66%	70%
Identified 6 + % appreciation as the minimum acceptable rate	—	—	—	—	46%
Identified 8 + % appreciation as the minimum acceptable rate	—	—	—	—	32%
Did not answer	14%	23%	21%	21%	14%

A recent change in the tax laws allows pension funds to purchase mortgaged imcome-producing property and to mortgage property themselves without incurring an unrelated business income tax. Will this fact increase the likelihood of your fund's purchase of real estate?

	1981
Yes	18%
No	74%
Did not answer	8%

Has your fund purchased real estate equity by participating in any of the following vehicles?

	1981
Direct purchase	8%
Limited partnership	4%
General partnership	1%
Corporations	2%

Has your fund participated in direct real estate investment utilizing the management expertise of an outside real estate counselor?

	1981
Yes	9%
No	83%
Did not answer	8%

If yes, what type of organization?

A. 26% insurance company
B. 26% bank
C. 10% investment banker
D. 5% developer
E. 26% independent real estate management firm
F. 21% broker or realtor

What do you regard as an acceptable management fee for your fund's participation in direct real estate investment utilizing an outside real estate investment counsel?

	1981[1]
½ of 1% annually of real estate under management	—
¾ of 1% annually of real estate under management	36%
1% annually of real estate under management	39%
1¼% annually of real estate under management	18%
1½% annually of real estate under management	—
2% annually of real estate under management	7%

[1]*Based on 19 responses.*

How do you value the real estate in your portfolio?

	1981[2]
At cost	30%
By replacement cost	7%
By income appraisal — capitalizing the value of the income flow	41%
Comparable property sale	7%
All of the above	15%

[2]*Based on 27 responses.*

What do you regard as an acceptable management fee for your fund's participation in institutionally sponsored pool-type real estate vehicles?

	1981[3]
½ of 1% annually of real estate under management	—
¾ of 1% annually of real estate under management	25%
1% annually of real estate under management	59%
1¼% annually of real estate under management	15%
1½% annually of real estate under management	1%
2% annually of real estate under management	—

[3]*Based on 72 responses.*

Does your fund intend to purchase new real estate investments during the next three years?

	1976		1977		1980		1981	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Yes	48	29%	52	29%	—	—	—	—
Yes — direct ownership	—	—	—	—	122	49%	38	18%
Yes — commingled	—	—	—	—	105	42%	89	43%
No	96	58%	96	53%	—	—	—	—
No — direct ownership	—	—	—	—	127	51%	167	82%
No — commingled	—	—	—	—	144	58%	116	57%

The direct ownership of real estate equities is distributed among property types as follows:

	Current Ownership[4]		Planned — Next 3 Years[5]	
Type	Amount (in millions)	Percent	Amount (in millions)	Percent
Office Buildings	$155	21%	$ 510	32%
Hotels	17	2%	53	3%
Apartments	29	4%	56	4%
Industrial	65	9%	228	15%
Small Shopping Centers	27	4%	38	2%
Medium Shopping Centers	36	5%	109	7%
Large Shopping Centers	74	10%	113	7%
Warehouses	95	13%	85	6%
Agricultural Land	47	7%	26	2%
Not Specified	177	25%	352	22%
Current Total:	$722	Total Additional:	$1,570	

[4]*Response Group composed of: 25 corporation funds owning $645 million in real estate; 8 government funds owning $77 million in real estate.*

[5]*Response Group composed of: 29 corporation funds planning new real estate purchases of $938 million; 9 government funds planning new real estate purchases of $632 million.*

Commingled ownership of real estate is distributed among different type sponsors as follows:

	Current Ownership[6]		Planned — Next 3 Years[7]	
Sponsor	Amount (in millions)	Percent	Amount (in millions)	Percent
Bank Commingled	$ 201	13%	$ 269	17%
Insurance Commingled	1,057	65%	755	47%
Other Common Trust Funds	349	22%	352	22%
Not Specified	—	—	243	14%
Current Total:	$1,607	Total Additional:	$1,619	

[6]*Response Group composed of: 71 corporation funds owning $1,599 million in commingled; 1 government fund owning $8 million in commingled.*

[7]*Response Group composed of: 84 corporation funds planning new commingled purchases of $1,374 million; 5 government funds planning new commingled purchases of $245 million.*

Which of the following investments do you classify as real estate?

	1981
Classified *Mortgages* as real estate	23%
Classified *Equity Participation Mortgages* as real estate	67%
Classified *Mortgage Securities* as real estate	26%
Classified *Construction Loans* as real estate	23%
Classified *None* as real estate	16%

Two relatively new concepts in mortgage financing for home ownership are the Variable Rate Mortgage and the Shared Appreciation Mortgage (SAM). Assuming you were able to purchase either in a pooled package, which would you prefer?

	1981
Preferred a SAM	54%
Preferred a Variable Rate	28%
Did not answer	18%

Would you choose either of them over a conventional pooled mortgage package?

Yes	52%
No	23%
Did not answer	25%

Sixty-three funds or 31 percent of our respondents are currently financing real estate activities. This financing is allocated as follows:

	1981	
Type	**Amount (in millions)**	**Percent**
Mortgages	$1,678	53%
Equity Participation Mortgages	106	4%
Mortgage Securities	1,297	41%
Construction Loans	56	2%
	$3,137	

Thirty-one funds or 15 percent of our respondents plan to finance an additional $1,090 million in real estate during the next three years.

	1981	
Type	**Amount (in millions)**	**Percent**
Mortgages	$ 366	34%
Equity Participation Mortgages	486	45%
Mortgage Securities	203	18%
Construction Loans	35	3%
	$1,090	

The information contained in this survey has been researched, edited, and copyrighted by Money Market Directories, Inc., publishers of the Money Market Directory, *the encyclopedia of pension funds with assets over $700,000 and their investment advisors. Included in Money Market Directories' data base is real estate ownership by all major U.S. pension funds. For further information, contact David Bowerman, vice president, 300 East Market St., Charlottesville, VA 22901, (800) 446-2810.*

Real Estate Highlight

Rating commingled funds

Real estate today is becoming more accepted for diversification purposes by pension funds. It is estimated that 3 percent of the more than $600 billion in all pension fund assets is in real estate, a dramatic increase from even five years ago. That percentage is expected to increase steadily with continued inflation.

Historically, there has been a great bias against real estate investments. Fund trustees do not like either risk or complexity. On the surface, real estate appears to have both. In fact, however, its performance runs contrary to this perception. Real estate is actually less risky and volatile than many other investments. With the advent of pooled funds and the public reporting of their performance, it is possible to measure the results of real estate investment for the first time. To illustrate this, a real estate index that allows its direct comparison to other investments has been devised.

In developing the real estate index, the assets of three commingled real estate funds were used. These funds — PRISA, Equitable, and First Chicago's Fund — collectively represent more than $3.5 billion of income-producing property. A comparison of the annual rate of return during the '70's of this index with the Standard & Poors 500 Stock Index, the Salomon Brothers Long-Term Corporate Bond Index, 90-day treasury bills, and the C.P.I. shows the soundness of real estate as an investment. (See Figure 1.) The standard deviation for each instrument points out the risk factors associated with different investments. The real estate index is less volatile than either stocks or bonds, and therefore, can be interpreted to be less risky. Figure 2 on page 26 shows that during the last decade, the real estate index outperformed the C.P.I. considerably. This is significant to the corporate pension or profit-sharing trustee who wants to reduce risk, yet earn a healthy rate of return at the same time.

by **WILLIAM O. BRACHMAN**
Vice President
The Exchange National Bank of Chicago
Chicago, Ill.

As real estate's performance is quantified, its popularity grows. The emergence of pooled real estate funds further adds to real estate's investment attraction. The funds offer an efficient means of investing in real estate by giving the investor diversity while eliminating management problems.

Just as all blue chip stocks have different performance records, so do the commingled funds. Many differ greatly in their structure, investment philosophy, and management style. It is important to analyze the following aspects of a commingled or pooled real estate fund before investing.

Organization

A fund can be structured in two basic ways: closed-end or open-end. The primary difference between open- and closed-end funds is the manner of purchasing and selling ownership units by the participants. A closed-end vehicle raises a specific amount of money and then becomes "closed" to additional investors. With a closed-end fund,

Comparative Annual Rates of Return for Periods Ending December 31

Market Indices	1 Year (1979)	3-Year Average (1977-79)	5-Year Average (1970-74)	5-Year Average (1975-79)	10-Year Average (1970-79)	10-Year Standard Deviation
Real Estate Fund Index[1]	21.6%	15.0%	8.4%	12.2%	10.3%	4.9
Standard & Poor's 500 Stock Index	17.4	5.0	−4.2	14.5	4.7	19.6
Salomon Brothers Long-Term Corporate Bond Index	−4.9	−1.1	5.6	5.6	5.6	8.0
90-Day Treasury Bills	9.8	7.4	6.0	6.6	6.3	1.8
Consumer Price Index (C.P.I.)	13.3	9.7	6.6	8.2	7.4	3.4

[1]A composite performance of commingled funds with aggregate assets as of December 31, 1979, of approximately $3 billion.

Figure 1

Source: Exchange National Bank of Chicago

Weatheralls

Real Estate Investment Advisors to Pension Funds, Institutions and

For further information please call: Dick Grillo, or Bill Horwath at (212) 758-3131

Weatherall Green & Smith Inc
9 West 57th Street New York NY 10019
Telephone (212) 758 3131
Telex 649377

Also in London Leeds Paris Frankfurt Munich
Chartered Surveyors Established in London 1860

The above graph shows the relative values as of the end of each quarter shown of a single investment from January 1970 through December 1979 in a Real Estate Fund Index, Salomon Bros. Corporate Bond Index, Standard & Poor's 500 Stocks, 90-day Treasury Bills, and the Consumer Price Index (CPI).

Figure 2

Source: Exchange National Bank of Chicago

you are buying a participation and are committing your funds for a set time period, usually seven to 12 years. Traditionally, there is no penalty to withdraw funds from a closed-end fund, but usually you must find your own buyer, and that is not always easy.

An open-end fund is considerably more liquid. Although fund managers hope investors are in for the long haul, it is relatively easy to cash out of an open-end fund. Advance notice, however, is required. Units generally can be redeemed at the close of a calendar quarter by giving advance notice to the fund's management. This varies slightly from fund to fund, so it is good to be aware of the actual withdrawal policy before investing.

If you do decide to liquidate, make sure you do so as close as possible to the time the fund's properties are appraised.

Another factor to look for in the fund's structure is the method in which income is paid. Some funds may distribute the cash flow generated from properties; however, most funds reinvest cash flow, thereby adding to the fund's overall assets.

Management

Next, take a good, hard look at the fund's management.

First, evaluate management's track record in the real estate field. The fund's management should have sufficient expertise to set overall investment strategies that will not only protect an investor's principal but will also generate a substantial return. It is important to know from the beginning who is making investment decisions and by what criteria those decisions are made.

Look for a solid mixture of real

SECURE TOMORROWS BEGIN TODAY.

Presently serving more than 47 satisfied pension fund clients, STM gives you the investment advantage by analyzing and securing excellent growth potential markets in real estate and real estate mortgages. A Dallas-based corporation with offices in seven states, STM has the scope to manage property acquisitions and the capabilities to sell you mortgages, Ginnie Mae securities and real estate equities. Since 1924, STM has specialized in securing your tomorrows today.

• First Mortgages — Commercial and residential • Property Management — Industrial, office buildings, shopping centers • Equity Participations — Apartments, land development, office buildings, shopping centers • Real Estate Appraisals and Analysis

---

Home office: 2355 Stemmons
Dallas, Texas 75207
214/637-4950

Mortgage Bankers and
Real Estate Consultants
since 1924

estate, business, and financial expertise, with the major emphasis on real estate. It is essential that the fund's managers are privy to deals nationwide in order to make acquisitions and that they have the savvy to structure those deals profitably. As purchasing properties becomes more competitive, it is important to invest with those who have access to quality properties in appreciating areas and who have an efficient organization that can react quickly when opportunities arise.

Once you have determined the level of expertise of the fund's managers, it is important to discuss their further involvement in the fund's properties. Some funds strictly limit their management team to an advisory capacity, drawing on their knowledge but steering clear of properties in which they have a vested interest. Other funds have no such limitations, so it is a good idea to examine their objectivity about certain properties. The situation has existed where a manager invests the fund's assets in projects for which he has received a developer's fee, leasing commission, and management fee, as well as getting a fee for managing the commingled fund. Given the choice, it is cleaner to invest in a fund that has no conflict of interest among its managers.

Compensation

Take a look at turnover in the fund's management. Large turnover can mean different things. One, the fund may be an institutional training ground for junior managers who leave after a few years for greener pastures. It can also mean that the fund simply does not compensate well enough to keep good managers. Both of these situations should serve as warning signals to the investor.

Of course, long-term employment, in and of itself, means very little. Long-term management coupled with high fund performance is the key. This situation usually exists when management is compensated through an incentive arrangement.

Investment strategy

After you know who is managing the fund, find out all you can about the fund's investment strategy. There are diverse views regarding

1 phone call. 1 account name. $1,100,000 insured safety.

If you think one S&L can't offer more than $100,000 FSLIC deposit insurance per account, you're right.

But we're not one S&L.

We're the 11 different associations that comprise Financial Federation, Inc. A $2-billion corporation on the New York Stock Exchange.

And since we're 11 separate entities, we can offer 11 times the normal insurance. Which is something many investors have known (and appreciated) for 20 years.

Something else those investors know is that we meet every savings account need. From complete liquidity to money market accounts to short-term Jumbo C.D.'s.

All of which you can arrange simply by calling us at (213) 624-1901, collect. Or by writing to Million-One Program, Financial Federation, 615 South Flower St., Los Angeles, CA 90017

For a Million-One in insured safety.

With one-eleventh of the normal bother.

The eleven Financial Federation savings associations

FINANCIAL FEDERATION INC

All eleven associations are located in California and all are chartered by the state of California. All are members of the Federal Home Loan Bank system and all are insured by the Federal Savings and Loan Insurance Corporation.

FSLIC

strategy, which is why it is so important first to know who is setting policy.

An advisory committee of one commingled fund was recently asked to rate on a scale of 0-100 (with 0 being interest in cash flow or yield and 100 being appreciation) their criteria for investing in a particular property. This committee is composed of real estate and business professionals. Collectively, they have $9½ billion of experience in developing, financing, buying, selling, and managing all types of income-producing properties nationally, including downtown and suburban office buildings, industrial warehouses, hotels, shopping centers, and apartment buildings.

Interestingly enough, appreciation was overwhelmingly the choice of this panel of real estate experts. They further agreed that the most important factor in a property's appreciation potential is its *location,* which is a factor rarely mentioned. Too often, fund managers emphasize excessively a particular property's yield. That kind of myopic view can eliminate substantial future gains.

Let us consider an example. Chicago's downtown is experiencing a massive facelift with its renaissance redevelopment of the Loop. Several years ago, at the first hints of the continuing project, partnerships were formed that began purchasing properties within the boundaries of the proposed project. These savvy shoppers were interested in long-term appreciation rather than short-term yields. One group bought a one-story building that housed a single retail establishment. Cash flow and yield were not terrific. However, they recently sold that property to a developer, realizing a multi-million dollar profit on a minimal investment.

Location was obviously the key factor in that building's appreciation, as generally is the case. When analyzing a fund's investment strategy, check out the emphasis placed on appreciation as opposed to yield. Look for a sense of balance between cash flow and appreciation.

Beyond that, ascertain what percentage of the fund's assets, if any, are leveraged. Historically, funds have acquired properties on all-cash basis both to be conservative and

REAL ESTATE

A stable growth asset for the **pension fund manager.**

WHY?

Portfolio Diversification
Reduced Volatility
Protection Against Inflation
Maximized Returns

Ackerman Advisory Associates has made real estate investments exceeding $500,000,000 on behalf of our domestic and foreign institutional clients.

Our portfolio performance illustrates our objective of outstanding long-term yields within the context of safety of investment and capital appreciation.

ACKERMAN
ADVISORY ASSOCIATES
A Division of Ackerman & Co.

Paul H. Saylor, President
3340 Peachtree Road, N.E., Suite 111
Atlanta, Georgia 30026
Telephone 404/266-0800

You may be missing some outstanding investment possibilities in real estate.

We have some good ideas about quality income-producing real estate, its value as a hedge against inflation and the capital appreciation it provides.

We have advised on or arranged the purchase of almost half a billion dollars in investment property for clients who liked our ideas. We provide for property acquisitions, sales, financing, management, advisory and consulting services for domestic and overseas clients.

Let us tell you more.

Loeb Partners Realty
(formerly Loeb Rhoades, Hornblower Realty Company)
Joseph S. Lesser, President
521 Fifth Avenue, New York, NY 10175
Tel. (212) 883-0360 Telex #666577

because an IRS provision taxed, as unrelated business income, all or a portion of the net rental income derived from leveraged properties owned by a real estate fund. One of the last acts of the Carter Administration was to eliminate the burdensome forms of this tax so that all of the income generated by properties acquired by funds will not be treated as unrelated business income of debt-financed property. As a result, many funds are starting to leverage some property purchases. In fact, this will become a more common practice in the '80's.

This is partially because of the increasing experience with the foreign investor, whose investment psychology differs from that in the United States. Foreign investors commonly view long-term mortgages not as a debt instrument, but rather as an asset. This, of course, technically is not the case, but can be thought of as such if the buyer is able to purchase a property with a long-term, fixed-rate mortgage that bears a single digit interest rate.

In a multi-tenant building, that leverage can really work for you as rental rates increase. The return will go up far faster than purchasing a property on an all-cash basis. Therefore, it becomes prudent to locate properties with single-digit, long-term debt and add them to the fund's portfolio. This is especially important since the availability of properties on an all-cash basis is dwindling. In the past, it was easier to buy all-cash because developers lacked construction take-out financing. This is not as prevalent today because of the lack of speculative construction and the difficulty in financing a project without either a take-out or considerable equity financing.

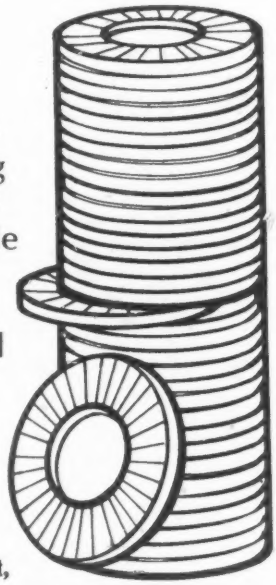
The question investors must consider is: what is a safe percentage of leveraged properties as opposed to unmortgaged assets? The investor certainly should think long and hard about a fund that has over 50 percent of its assets leveraged.

Property mix

Another area for analysis is the fund's property portfolio. The buzz word in this area is *diversification,* which is sound advice. Although location is of the utmost importance in property selection, it is also wise

Call Maggie Mae for a hot tip on a new "blue chip."

Maggie Mae, MGIC's Mortgage Marketing Corporation, is the nation's leading private "conduit" for residential mortgage pass-through securities, the new "blue chip" in investments. More and more investors are adding this safe, high-yielding real estate alternative to their portfolios. Why not let Maggie Mae show you the reasons why? Call today for more information about specialized private placements.



MGIC
Mortgage Marketing Corporation
Mark Korell, Executive Vice President, 800-558-9900.

Separately Managed Accounts For Real Estate

JOHN McMAHAN ASSOCIATES, INC. JMA

201 CALIFORNIA STREET, SAN FRANCISCO 94111, (415) 433-7770

to have a mix of property types. For example, in bad economic times, small retailers are among the first businesses to be affected. For this reason, it is probably best not to be heavily invested in shopping centers. A small percentage of the fund's assets might well be invested in some strategically located malls, but more than 50 percent in shopping centers is running a great risk, as it would be with any one type of real estate. Any market can run soft. The key here is to look for well-located diversity!

Find out if the fund purchases only completed properties or if they get involved in the actual development process. Traditionally, funds purchased only finished properties, but this is changing. Some institutions form joint ventures or enter presale development deals because of the dearth of available existing properties and the potential for superior return. Again, the prudence of this activity is dependent upon the experience of the people involved. Examine their track record in this area. If it is good, then there is no reason to avoid the fund. The presale agreement may commit the fund to purchase a completed property that may not have any tenants, thereby creating an extreme risk. If the fund managers have no experience in the development area *and* are involved in structuring that kind of deal, think twice.

Property management

After the fund purchases properties, somebody must collect the rents, keep the tenants happy, the buildings fully occupied, and, in general, manage the asset. This can only be accomplished with professional management, which is vital to good real estate performance. The diligent application of astute property management techniques can optimize return on investment by increasing cash flow and preserving asset value. Each property must be considered as a separate business with its own variable budget. The best thing to look for in this area is a Certified Property Manager (CPM), who is a professionally trained individual who will help optimize a property's return.

It is important to examine the objectivity of the on-site property managers. They may work for highly respected, multi-divisional

real estate corporations, which may have a vested interest in your tenants. For instance, in one situation, a certain fund bought a building from a prominent real estate developer that also had a property management division. The fund retained the developer's property management arm to oversee the property. That same developer, shortly afterward, completed construction on a nearby office complex. Through his property manager, the developer solicited many of the fund's tenants for the new property. Not knowing the loyalties of the on-site manager can create problems down the line.

Since each property is a distinct business, property managers should establish separate annual budgets for every property. Individual managing agents should submit to the fund's management financial reports that include cash flow statements showing receipts and disbursements, budgets reflecting planned versus actual results, variances, and delinquency reports. The fund should retain an independent, outside engineering consultant to review and approve major expenditures, which should be subject to competitive bid.

The fund's property manager should have experience structuring leases to include renegotiation of rental rates, pass-through of taxes, utilities, maintenance, and insurance. In short, the building's tenants should be paying as much of the overhead as possible, and the fund's manager should make sure that this happens. He should also provide market intelligence as to profitable tenant mix and long-term leasing strategies.

Property appraisal

As investment managers become more sophisticated, they become very concerned with valuation techniques. This is to the benefit of the investor, who wants to protect himself as much as possible. If, however, you are comparing performance figures and track records among various funds, it becomes a difficult exercise because mathematically there is no precise measure. A recent study conducted by *Harvard Business Review* found that there is little standardization in the real estate appraisal process.

Although real estate performance measurement has come a long way, it is still operating in an inefficient market environment. There are no neat and tidy results as there are with the stock market. Therefore, it becomes important to understand valuation procedures. Some funds may be very constructive in their valuation, while others may be less so in order to beef up their results, which brings us right back to point number one: Know the fund's management and their philosophy.

One way to evaluate a fund's appraisal figures is to determine who performed the appraisal. Was it done by fund personnel, a related subsidiary of the fund's management, or by an outside, independent organization? As a general rule, look for an objective outside opinion. Some funds will not spend the money for independent appraisals, which are probably the single, most expensive operating cost of funds that do. Still, it is important to know what someone else besides the fund itself thinks about its properties and its performance.

Also look at appraisal frequency.

There are a lot of good reasons to invest in agriculture.

John Hancock gives you the best.

If your investment objectives are diversification, inflation protection, high return with low volatility and safety, you've got good reasons to consider ACRE, John Hancock's new agricultural investment fund.

ACRE provides qualified plan sponsors with an exciting opportunity to diversify their portfolios with investments in one of the world's greatest resources – America's agriculture. These select investments include owned timber and farm lands, agricultural facilities and unique agricultural debt arrangements.

John Hancock is one of the nation's leaders in agricultural based investments. With over $2 billion currently under management, and our own nationwide network of agricultural financial experts, we have the experience plan sponsors can rely on.

To learn how ACRE can fit your investment mix and performance objectives, write or call today.

Richard P. Troy, Vice President
Group Pension Operations
John Hancock Mutual Life Insurance Company
John Hancock Place – P.O. Box 111
Boston, MA 02117
(617) 421-6294

John Hancock
Mutual Life Insurance Company
Boston, Mass.

The timing of appraisals is very important. Whether you are going in or coming out of a fund, the investor wants the asset valuation to be the most recent possible. Some funds only appraise properties every three years; others do so as often as every six to 12 months.

Generally, closed-end funds do not update their appraisals on a regular basis, as open-end funds do. It is wise, therefore, to check to see if all investors are treated equally upon entering the fund. It is fair for early investors in a closed-end vehicle, whose funds immediately are used to purchase properties, to receive greater return than those coming in near the end. Early investors should be concerned about a fund's policy about this issue.

It is just as important, if not more so, to understand the valuation procedures of a fund's properties as it is to know the real estate track record, which, historically, has been roughly half cash flow and half unrealized appreciation. The valuation techniques will help you understand the mechanism used to determine unrealized appreciation and how it is accounted for on the books.

Fund size

Find out if the fund has a growth ceiling. Funds can grow to such a size as to become a complicated management problem. If the cash flow of a fund is 10 percent, for example, management can be faced with multi-million dollar reinvestment decisions on a regular basis. Acquiring properties at that rate can be a real problem. As a general rule, $500 million in assets is the maximum size for an effective commingled real estate fund. Anything larger and a fund could have a major reinvestment problem of the cash flow.

Management fees

Just as you pay management fees to your stockbroker, commingled funds also charge a fee. The range in the industry runs from .9 of 1 percent to 1.5 percent of the net asset value of the investor's share, with the norm being about 1.2 percent. Some funds offer a sliding fee schedule, where they start at 1.5 percent and go down to .75 percent when an individual investor reaches a certain dollar amount. As more and more entities enter this business, management fees may become more competitive.

Conclusion

Selecting the right real estate investment vehicle is a challenge for the trustees of a pension fund. Since real estate is a long-term investment, it is important to have confidence in the fund and regularly evaluate its performance. Some pension fund managers rely on outside pension fund consultants to analyze a particular fund both before investing and periodically thereafter. Some very reputable firms perform this service. If they are not already familiar with a particular fund, they will investigate it for you.

Even if you use a consulting firm, it is imperative for the pension fund manager to become acquainted with the commingled real estate fund's management. Their real estate expertise and investment strategy are crucial to the success of the fund. □

The most important thing to remember about real estate investments is this:

Merrill Lynch, Hubbard Inc.

Real estate investment advisors and managers, specializing in individually designed portfolios for major pension funds.

Robert L. Kinney
Vice President & Director
2 Broadway
New York, N.Y. 10004
(212) 908-8440

Merrill Lynch
Merrill Lynch, Hubbard Inc.
A breed apart.

On pension funds and real estate

Each year Greenwich Research Associates measures the demand—present and prospective—for real estate investments. Charles Ellis, president of Greenwich Research, shares his analysis of the lastest data.

Real estate is Topic Number One in pension fund investment management these days and for several very good long-term reasons: returns are attractive, fundamental diversification is provided *vis-a-vis* stocks and bonds, and valuations are substantially more stable than the prices — particularly in recent years — of stocks and bonds.

Demand — both present and prospective — for real estate investments is measured each year by Greenwich Research Associates in over 1,000 personal interviews with plan sponsors. As shown in Table 1, 22 percent of the 1,800 largest corporate plan sponsors now invest in real estate equities and nearly two-thirds of these corporations plan to increase their real estate equity investments. Even more impressive, 28 percent of the companies plan to start investing in real estate during the next year or two.

For very large corporations (whose importance is indicated by the fact that the 100 largest plan sponsors represent more than half of the total plan assets of all corporate employee benefit funds), the demand is even stronger: 51 percent of the 100 largest industrials now invest in real estate equities; better than four out of five of these companies intend to increase their real estate investments; 30 percent of the companies — or 60 percent of those that do not yet invest in real estate equities — plan to start investing in real estate equities in the next year or two. Combining those who plan to increase their equity real estate investments with those who plan to start, our research shows a 72 percent total demand among the 100 largest industrials.

The high level of interest in getting started in real estate equity investments is largely a recent phenomenon — as shown in Table 2. Since our 1976 research, the number of corporate plan sponsors planning to start investing in real estate equities has *tripled* from 9 percent of the companies to 28 percent.

In 10 years of research on pension funds and on each of the other major corporate and institutional financial service markets, this is the most remarkable surge of demand we have seen.

Erich Hartmann

by **CHARLES D. ELLIS**
President
Greenwich Research Associates
Greenwich, Conn.

On the fixed-income side of real estate, as shown in Table 3 and 4, both the level and the rate of growth in demand for mortgages are considerably lower than the demand for real estate equities.

An important qualifier on the extraordinary *breadth* of demand for real estate investments is provided in Table 5, which shows that the *depth* of demand is still quite limited. Less than 2 percent of total employee benefit plan assets (1.6 percent of pension funds, 1.3 percent of profit-sharing plans, and only 0.3 percent of thrift plans) are now invested in real estate.

With the patterns of demand for real estate equity investments now established, let's take a more careful look at the driving forces behind the demand.

In three of the five years between 1975-79, long-term expected rates of return in large capitalization growth stocks — the perennial favorite investment medium of corporate pension funds — have, as shown in the table below, been modestly higher than the returns expected from real estate equities.

	Expected Rates of Return		
Year	Real Estate Equities	Large Growth Stocks	Rate of Return Spread
1975	8.9%	9.8%	(0.3)
1976	9.9%	9.7%	0.2
1977	9.4%	9.1%	0.3
1978	9.7%	10.1%	(0.4)
1979	10.2%	10.5%	(0.3)
1980	13.1%	12.8%	0.3

In our 1980 research, the long-term average *expected* rate of return on investments in real estate equities rose up and over the re-

turns expected in growth stocks. So, the expected returns are clearly attractive to corporate plan sponsors, and the expected rate of return is the primary driving force behind the surging demand for real estate.

The second driving force behind the demand for real estate is the opportunity to diversify employee benefit plan assets — particularly with regard to the impact of inflation, which is so very different for real estate equities than for securities. (At the risk of oversimplifying, an increase in the expected rate of inflation *raises* the rate at which future dividends and interest are discounted and *lowers* the prices of stocks and bonds, whereas in equity real estate, the same increase in expected inflation *raises* the estimated rate at which rents will increase and *raises* the present valuation of properties.)

How Demand for Real Estate Equities Varies With Company Size and Plan Assets

	Use Service Now	Expect to Use More	Will Start Using	Total Future Demand
Fortune Rank				
001- 100	51%	42%	30%	72%
101- 200	37%	19%	28%	47%
201- 300	33%	23%	29%	52%
301- 400	18%	6%	39%	45%
401- 500	16%	15%	36%	51%
501- 600	14%	6%	26%	32%
601- 700	14%	9%	21%	30%
701- 800	14%	8%	22%	30%
801- 900	12%	6%	14%	20%
901-1,000	6%	2%	16%	18%
Total Industrials	24%	15%	27%	42%
Total Utilities	22%	17%	28%	45%
Large Utilities	25%	20%	39%	59%
Medium Utilities	20%	14%	22%	36%
Retail	20%	11%	34%	45%
Transportation	13%	10%	33%	43%
Employee Benefit Fund Assets				
Over $1 billion	57%	49%	22%	71%
$501-1,000 million	51%	36%	24%	60%
$251- 500 million	40%	25%	34%	59%
$201- 250 million	23%	14%	39%	53%
$151- 200 million	31%	18%	35%	53%
$101- 150 million	15%	11%	39%	50%
$ 76- 100 million	21%	12%	30%	42%
$ 51- 75 million	15%	10%	32%	42%
$ 41- 50 million	15%	12%	25%	37%
$ 31- 40 million	20%	13%	33%	46%
$ 21- 30 million	15%	9%	30%	39%
$ 16- 20 million	16%	9%	27%	36%
$ 11- 15 million	7%	5%	25%	30%
$ 5- 10 million	9%	4%	14%	18%
Under $5 million	5%	2%	11%	13%
Total Companies	22%	14%	28%	42%

Table 1

Source: Greenwich Research Associates

Russell Realty Co.

Specialists in Farm & Ranch Investment opportunities in growing Southwest New Mexico.

Contact Mr. J. O. Bratcher
516 West Main
Artesia, New Mexico 88210
(505) 746-2100

Another aspect of diversification through real estate is the degree of non-covariance in the year-to-year returns from real estate investments and from stocks and bonds. This diversification advantage enables an employee benefit fund to increase its equity exposure through real estate investments more — for a specified level in riskiness or variability in rate of return — than it could by adding more common stocks (where variations in return are dominated by changes in the overall stock market).

The third drive behind the demand for equity real estate investments is the extraordinary nominal stability in the valuations given real estate investments — particularly during the past several years and particularly in the most widely advertised pooled funds. Employee benefit plan sponsors do not like the kind of volatility in values experienced in both stocks and bonds during the past several years — particularly when an unexpected drop in current market values might require an unplanned increase in the annual contribution required to fund the plan.

The stability of the valuations of real estate investments — because they are based on the long-term investment *appraised value* rather than on a "spot" *market price* — is the least frequently discussed but may well be the greatest potential advantage of real estate investments.

The reason valuation stability may be so important is that it allows plan sponsors to make greater commitments to equity investments for a specified level of acceptable risk of change in portfolio valuation than could be made in more volatile common stocks without, as shown above, obliging sponsors to accept a lower rate of return.

The importance of this dimension can be understood readily by contemplating the significance of

How Plans to Start Using Real Estate Equities Have Been Changing

	1976 Research	1977 Research	1978 Research	1979 Research	1980 Research	Four-Year Change
Fortune Rank						
001- 100	9%	14%	16%	34%	30%	21
101- 200	17%	12%	18%	25%	28%	11
201- 300	13%	14%	17%	23%	29%	16
301- 400	10%	15%	17%	24%	39%	29
401- 500	8%	10%	7%	29%	36%	28
501- 600	4%	7%	8%	17%	26%	22
601- 700	15%	3%	5%	14%	21%	6
701- 800	2%	9%	13%	14%	22%	20
801- 900	0%	8%	11%	13%	14%	14
901-1,000	4%	2%	10%	20%	16%	12
Utilities	13%	15%	10%	17%	28%	15
Retail	4%	11%	10%	23%	34%	30
Transportation	21%	10%	13%	19%	33%	12
Employee Benefit Fund Assets						
Over $500 million	13%	15%	19%	24%	23%	10
$251-500 million	12%	15%	18%	35%	34%	22
$101-250 million	12%	10%	17%	27%	38%	26
$ 51-100 million	17%	11%	12%	18%	31%	14
$ 31- 50 million	7%	7%	15%	22%	30%	23
$ 21- 30 million	9%	11%	13%	25%	30%	21
$ 16- 20 million	3%	4%	9%	9%	27%	24
$ 11- 15 million	7%	14%	5%	12%	25%	18
$ 5- 10 million	3%	4%	10%	18%	14%	11
Under $5 million	2%	5%	5%	10%	11%	9
Total Companies	9%	10%	12%	20%	28%	19

Table 2

Source: Greenwich Research Associates

Keystone Mortgage Company

Home Office / 11340 W. Olympic Blvd., Suite 300 / Los Angeles, Calif. 90064

/ (213) 479-4121, 879-5655 *

"The Bottom Line People"
Founded 1957

COMMERCIAL AND INDUSTRIAL REAL ESTATE
RESPONSIBLE UNDERWRITING AND ADMINISTRATION OF:

Mortgage Lending
Real Estate Development
Joint Ventures
Property Management
Appraisals and
Economic Analysis

*Contact: Christopher E. Turner, Exec. Vice Pres.

these factors: 1) The typical employee benefit plan is (as shown in Table 5) less than 50 percent invested in equity investments. 2) The expected rate of return on real estate equities and growth stocks is 300 basis points higher than the rate of return expected on bonds. Hence, 3) for each shift of 10 percent of plan assets away from bonds to equity investments (in either growth stocks or real estate), the expected rate of return on the overall fund would be increased by 30 basis points (10 percent of assets at 300 basis points higher rate of return).

Is this kind of increased rate of return important? Yes. For example, very, very few pension funds achieve a rate of return that is 30 basis points better than the market average rate of return in their employee benefit plans, due to superior operating management of their invested assets. In this context, higher annual returns of 30 basis points a year are substantial. And if a larger shift in asset mix were made, the incremental annual return would be even more substantial.

How far should pension funds go

How Demand for Real Estate Mortgages Varies With Company Size and Plan Assets

	Use Service Now	Expect to Use More	Will Start Using	Total Future Demand
Fortune Rank				
001- 100	31%	13%	8%	21%
101- 200	17%	3%	4%	7%
201- 300	13%	3%	8%	11%
301- 400	13%	0%	13%	13%
401- 500	8%	4%	11%	15%
501- 600	3%	1%	9%	10%
601- 700	5%	0%	5%	5%
701- 800	7%	3%	10%	13%
801- 900	2%	2%	6%	8%
901-1,000	6%	0%	2%	2%
Total Industrials	12%	3%	8%	11%
Total Utilities	14%	6%	15%	21%
Large Utilities	11%	7%	14%	21%
Medium Utilities	15%	5%	15%	20%
Retail	11%	2%	14%	16%
Transportation	3%	0%	18%	18%
Employee Benefit Fund Assets				
Over $1 billion	29%	8%	12%	20%
$501-1,000 million	24%	4%	11%	15%
$251- 500 million	17%	7%	8%	15%
$201- 250 million	14%	5%	5%	10%
$151- 200 million	6%	2%	10%	12%
$101- 150 million	6%	0%	11%	11%
$ 76- 100 million	11%	3%	8%	11%
$ 51- 75 million	10%	6%	9%	15%
$ 41- 50 million	10%	0%	8%	8%
$ 31- 40 million	12%	2%	20%	22%
$ 21- 30 million	7%	1%	15%	16%
$ 16- 20 million	9%	5%	5%	10%
$ 11- 15 million	7%	1%	14%	15%
$ 5- 10 million	7%	1%	4%	5%
Under $5 million	2%	0%	4%	4%
Total Companies	11%	3%	10%	13%

Table 3 Source: Greenwich Research Associates

Taking an active part in America's real estate market

One of the nation's oldest and most experienced real estate investment and management corporations is seeking the following properties

Apartment Houses

100 units or more

Shopping Centers • Office Buildings

50,000 sq. ft. or more

Please call or write

The Robert A. McNeil Corporation

Main Office: 2855 Campus Drive
San Mateo, CA 94403
(415) 572-0660

L. James Kelediian
1001 East Touhy Avenue
Suite 520
Des Plaines, IL 60018
Phone: (312) 296-0212

Roy W. Mers
13601 Preston Road
Suite 717 West
Dallas, TX 75240
Phone: (214) 233-3483

Frederick Nelson
518 Earth City Plaza
Suite 233
Earth City, MO 63045
Phone: (314) 291-7666

Jerry Carstens
1750 112th Avenue
Suite C-239
Bellevue, WA 98004
Phone: (206) 453-0770

J. Robert Lowe
2840 Mt. Wilkinson Parkway
Suite 100
Atlanta, GA 30339
Phone: (404) 436-3323

William G. Nash
6000 East Evans
Building 1, Suite 260
Denver, CO 80222
Phone: (303) 759-3181

Martin A. Reibel
1345 Avenue of the Americas
29th Floor
New York, NY 10105
Phone: (212) 245-8790

in increasing their exposure to equities, whether stocks or real estate? One way to think through the answer to this central question is to look carefully at the difference between the pension *plan* and the pension *fund*. For the typical corporate plan sponsor, the pension plan's

Relative to liquidity, pension funds are unique: they are very long-term investments and do not need liquidity.

obligations or liabilities are 50 percent larger than the assets in the fund.

As a result, if the plan assets are one-half in equities and one-half in fixed-income investments — the normal situation in 1980 — the assets of the pension fund will be only one-third in equities and two-thirds in fixed-income "assets" of which half are bonds and half are the plan's unfunded past service obligations, which are roughly equivalent to an account receivable from a single corporation (the plan sponsor) at a fixed rate of return (the actuarial interest rate assumption, which is usually 6-8 percent).

Moving the pension *plan* to two-thirds in equities would mean investing the pension *fund* a full 100 percent in equities. If investing a pension *plan* two-thirds in equities is appropriate for a plan sponsor, then investment opportunities that facilitate increasing equity investments are highly desirable. Real estate appears to meet this need.

With so much interest in real estate equity investing for pension funds and such good strategic reasons in support of this interest, are there any important negatives that pension executives should consider?

Liquidity is the most frequently cited problem with real estate investments. They are difficult and costly to sell. However, relative to liquidity, pension funds are unique: they are very long-term investments and do not need liquidity. Most pension plans will not take any money out of the pension fund for at least 30 years because annual contributions will reliably exceed benefit payments and the fund will

How Plans to Start Investing in Real Estate Mortgages Have Been Changing

	1977 Research	1978 Research	1979 Research	1980 Research	Three-Year Change
Fortune Rank					
001- 100	5%	11%	16%	8%	3
101- 200	4%	6%	11%	4%	0
201- 300	4%	10%	12%	8%	4
301- 400	8%	7%	10%	13%	5
401- 500	3%	5%	9%	11%	8
501- 600	4%	6%	8%	9%	5
601- 700	2%	4%	9%	5%	3
701- 800	2%	5%	11%	10%	8
801- 900	8%	0%	5%	6%	−2
901-1,000	2%	2%	14%	2%	0
Utilities	3%	8%	11%	15%	12
Retail	6%	13%	9%	14%	8
Transportation	0%	3%	6%	18%	18
Employee Benefit Fund Assets					
Over $500 million	8%	13%	16%	12%	4
$251-500 million	4%	12%	15%	8%	4
$101-250 million	6%	10%	12%	9%	3
$ 51-100 million	4%	4%	9%	9%	5
$ 31- 50 million	4%	9%	8%	15%	11
$ 21- 30 million	2%	8%	17%	15%	13
$ 16- 20 million	0%	4%	9%	5%	5
$ 11- 15 million	5%	4%	10%	14%	9
$ 5- 10 million	4%	4%	5%	4%	0
Under $5 million	4%	3%	7%	4%	0
Total Companies	4%	7%	10%	10%	6

Table 4 Source: Greenwich Research Associates

How Mean Asset Mix Varies With Type of Plan

Type of Investment	Pension Plan	Profit-Sharing Plan	Savings and Thrift Plan
Company stock	1.4%	16.8%	34.3%
Other common stock	42.8%	23.9%	12.8%
Total stocks	44.0%	40.3%	46.6%
Bonds	23.8%	16.4%	9.5%
Guaranteed investment contracts	7.1%	23.4%	32.2%
Insured plans	5.7%	0.7%	2.3%
Real estate	1.6%	1.3%	0.3%
Cash and equivalents	14.4%	14.2%	7.2%
Other assets	2.9%	2.6%	1.8%

Table 5 Source: Greenwich Research Associates

READY TO BUY

$1 to $20 million available for OFFICE BUILDINGS, INDUSTRIAL COMPLEXES, SHOPPING CENTERS located in ORANGE COUNTY, PALM SPRINGS, BAY AREA, PHOENIX, LAS VEGAS, ATLANTA. We purchase as principals, brokers are protected.

Send set-ups to:

Equitec Properties Company
P.O. Box 1109
Lafayette, CA 94549
(415) 283-8900

EQUITEC

continue virtually indefinitely so there is no need to add liquidity now in anticipation of plan termination.

Language is another difficulty. "Cash on cash," "net, net, net," and other terms so familiar to real estate executives are often unfamiliar to pension executives. This difficulty is rapidly disappearing as pension executives gain experience and familiarity with the terms and concepts of real estate investing.

The major problem with real estate investing for pensions appears to be timing. Is this really the right time to invest in real estate? The answer is: "It all depends." In part, it all depends on why real estate appears attractive to the particular plan sponsor. If the answer is, candidly, that returns earned in the past several years are the main reason for investing now, the chances are high that the results over the next several years will be disappointing. This leads directly to the other factor on which "it all depends."

How long the pension fund will sustain its investment in real estate is even more important in deciding whether the timing is right. For pension funds that will persist for many, many years with their real estate investment program and will not get shaken out by adverse interim experience, the long term will so greatly dominate the initial period that timing almost does not matter.

Timing can be made even less important by adopting the time-honored practice of dollar cost averaging — building up a real estate investment program over a period of several years — and sticking with it.

Asking when the pension fund might *stop* investing in real estate is the key test of when a fund should *start* investing in real estate. If the pension fund would stop soon, should short-term returns prove disappointing — particularly in relation to the exceptional returns in the past few years — then this is no time to start. On the other hand, if the fund is committed to real estate investing and will stay committed, then this may be as good a time as any. The final answer depends not so much on real estate as on the specific fund and plan sponsor. □

4th Annual Real Estate Portfolio Manager Directory

■ The following *Pension World* Real Estate Portfolio Manager Directory lists firms that provide real estate portfolio management services for pension funds. It is not an exhaustive list, but rather lists the firms that responded in full to *Pension World's* questionnaire and that fit the prescribed criteria: 1) only firms that indicated they currently manage real estate portfolios for pension fund clients are listed and 2) no company is included whose *total* assets under real estate portfolio management are less than $10 million.

During June, 1981, the *Pension World* questionnaire was mailed to 650 firms throughout the U.S. that provide some form of real estate services. The response rate was 21 percent, with 77 of those firms — including 44 from last year's list — meeting the criteria.

Questionnaires received indicate that the list of real estate portfolio managers continues to grow. Using the same criteria as last year, the 1981 *Pension World* Directory increased in size by 24 percent. Another 14 firms responded that they are in the process of instituting new funds or expanding their services to include pension fund clients for the first time and wish to be contacted in 1982.

The number of pension fund clients listed under real estate portfolio management by any one firm ranges from 1 to 3,400. The smallest pension fund portfolio listed is $1 million; the largest is more than $2.9 billion.

Name and address	Person to contact, phone	Total assets under real estate portfolio management (millions)	Number of pension fund real estate clients	Total pension fund real estate assets under portfolio management (millions)
ACKERMAN ADVISORY ASSOCIATES 3340 Peachtree Road Suite 111 Atlanta, GA 30026	Paul H. Saylor President 404/266-0800	$280	4	$280
AETNA LIFE & CASUALTY 151 Farmington Avenue Hartford, CT 06156	Thomas R. John Director 203/273-6390	Equity Real Estate Separate Account (RESA) — $530; Participating Mortgage Separate Account (PMSA) — $9	74	RESA — $530; PMSA — $9
AMERICAN PRINCIPALS CORP. The American Building 2262 Carmel Valley Road Del Mar, CA 92014	Gregory D. Fitzpatrick Vice President 714/481-3131	$4,000	100+	$1.6
AMERICAN SUNBELT PROPERTIES 501 Park Avenue North P.O. Box 2321 Winter Park, FL 32790	Donald M. Collier President 305/629-1085	$60	3	$10
AMINOFF & CO. 9601 Wilshire Boulevard #220 Beverly Hills, CA 90210	Gary A. Aminoff President 213/858-6700	$100	3	$26
THE BALCOR CO. 10024 Skokie Boulevard Skokie, IL 60077	Donald L. Fortunato Vice Chairman 312/677-2900	$1,000+	Approx. 3,400	$322+
BANK OF AMERICA 180 Montgomery Street P.O. Box 37026 San Francisco, CA 94137	Richard Clark Vice President/ Investment Real Estate 415/622-3103	Approx. $250	Approx. 250	Approx. $100
THE BOSTON CO. REAL ESTATE COUNSEL, INC. One Boston Place Boston, MA 02106	Robert A. Radloff President 617/722-7102	$210	2	$110
ALEX BROWN REALTY 135 East Baltimore Street Baltimore, MD 21202	Turner B. Smith President 301/727-1700	Approx. $150	1	Approx. $50
CALIFORNIA FEDERAL SAVINGS & LOAN ASSN. 5670 Wilshire Boulevard Los Angeles, CA 90036	David J. Reed Senior Vice President 213/932-4567	$6,000	46	$15
CAPITAL CONSULTANTS, INC. 2300 S.W. First Portland, OR 97201	David Nelsen Vice President James Crumpacker Assistant Vice President 503/241-1200	$111	33	$111
CAPITAL FINANCIAL REALTY CORP. 9703 South Dixie Highway Miami, FL 33156	Gerard E. Glennon President 305/666-4226	Approx. $10	Approx. 25	Approx. $2.5

Breakdown of assets into real estate holdings	Participation offered	Geographical diversification	Minimum investment	Return on investment (net of fee)	Fee
Ownership in income-producing property — $263 million; mortgages — $17 million	Commingled, closed-end fund, direct investment	National with emphasis on Sunbelt	$500,000	Averages minimum 12.5% per year	Varies according to client and fund
RESA: Income-producing property — 94%; convertible mortgages — 6%; PMSA: participating mortgages — 100%	Units of participation	RESA: National; PMSA: Currently West	$100,000	RESA annualized return: 18.7% (1 year ending 4/30/81); PMSA: not yet available (fund established 3/31/81)	RESA: .95% of net mean assets; PMSA: .70% of net mean assets
Income-producing property	High-yield first mortgages, free-and-clear commercial properties, equity placements	West and Southwest	$25,000	9-20%	Negotiated
Income-producing property	Private placement, joint venture	Midwest and Sunbelt	None	15.5%+	Negotiable
Income-producing property	Outright ownership, limited partnerships, joint ventures	National	$500,000	7-12%	Negotiated
Income-producing property — approx. $800 million; mortgage portfolio asset value — approx. $250 million; undeveloped land — 4,500 acres	Limited partnerships, participation in commingled group trust	National	Limited partnerships — varies; group trust — $1 million	Equity partnerships — varies; Balcor Pension Investors mortgage fund — approx. 15% cash and deferred interest plus equity participation	Group trust — 1¼% of net assets; Balcor Pension Investors II — 7½% of cash flow
Income-producing property, including convertible mortgages	Separate accounts, commingled fund	National	$50,000 initial for fund	Varies	Varies according to type of account; available upon request
Income-producing property	Direct portfolio ownership; special situation participation	National	$10 million initial commitment for private portfolio clients	Depends on client policy	Negotiated
Income-producing property	Equity ownership, although sometimes structured as debt plus kicker	Emphasis on South and Southwest	$5 million	8-11% cash on cash	1½-2% or negotiated
Mortgages — $10 million; real estate — $5 million	90/10 participation in mortgage pass-through	California	$1 million	Varies	Varies
Income-producing property — 22%; mortgages — 78%	Units in open-end fund (hybird), mortgages	National with emphasis on West Coast	$1 million	9½-10% cash on cash	Varies
Income-producing property	50-100% equity positions, mortgages	Continental U.S.	$500,000	8-10%	Negotiable

Name and address	Person to contact, phone	Total assets under real estate portfolio management (millions)	Number of pension fund real estate clients	Total pension fund real estate assets under portfolio management (millions)
CHEMICAL MORTGAGE CO. 101 East Town Street Columbus, OH 43215	Daniel R. Goss Executive Vice President Hobart M. Munsell Senior Vice President 614/460-3000	$3,500+	7	$1,400+
CITIBANK, N.A. 153 East 53rd Street New York, NY 10043	John A. Weisz Vice President 212/559-9949	$2,500	61	$1,500
CITIZENS & SOUTHERN NATIONAL BANK P.O. Box 4114 Atlanta, GA 30302	T. Marion Slaton Assistant Vice President 404/581-4870	$200	195	$87
COLDWELL BANKER CAPITAL MANAGEMENT SERVICES 533 Fremont Avenue Los Angeles, CA 90071	Reid G. Samuelson Vice President/Director of Investments 213/613-3597	$450	25	$450
CONNECTICUT MUTUAL LIFE INSURANCE CO. 140 Garden Street Hartford, CT 06115	Norman Hausmann Director/Pension Division 203/727-6500	$2,473	3	$23
CONSOLIDATED CAPITAL INSTITUTIONAL ADVISORS, INC. 1900 Powell Street Emeryville, CA 94608	Richard G. Wollack President 415/652-7171	$1,200	Approx. 250	Approx. $50
CONTINENTAL ILLINOIS NATIONAL BANK 30 North LaSalle Street Chicago, IL 60693	Terry W. Thompson Vice President 312/828-8460	$400	80	$50
CROCKER REAL ESTATE INVESTMENT GROUP 44 Montgomery Street Suite 2110 San Francisco, CA 94104	John H. Dracott Vice President 415/477-7162	$110+ (12/31/80)	200+ (12/31/80)	$100+ (12/31/80)
RICHARD ELLIS, INC. 200 East Randolph Drive Suite 654 Chicago, IL 60601	Bradley A. Olsen Vice President 312/861-1105	$450	Direct investment — 2; (U.K.) pooled fund — 33	$400
THE EQUITABLE LIFE ASSURANCE SOCIETY OF THE U.S. 1285 Avenue of the Americas New York, NY 10019	Donald E. Conover Account Executive 212/554-4952	Equity Real Estate Account (SA 8) — $1,600	SA 8 — 245	SA 8 — $1,643 (5/31/81)
EQUITEC FINANCIAL GROUP 3732 Mt. Diablo Boulevard Suite 360 Lafayette, CA 94549	Kenneth E. Nitzberg President 415/283-8900	$400+	1	$50

Breakdown of assets into real estate holdings	Participation offered	Geographical diversification	Minimum investment	Return on investment (net of fee)	Fee
Residential -- $1.5 billion; income-producing property -- $1.6 billion; FHA-insured projects -- $350 million; HUD rehabilitation loans -- $18 million	Loan servicing in 38 states	Continental U.S.	Residential -- $1 million; income properties -- $3 million	Negotiable	Varies from 5 to 40 points depending on loan type, loan size, and services rendered
For pension accounts only: mortgages -- $856 million; equities -- $649 million	Equity, participating first mortgages, real estate income funds, separate accounts	National	$5 million	16-20%	Available upon request
Income-producing property -- 17%; mortgages -- 77%; undeveloped land -- 6%	Mortgages, joint ventures, equity participation, direct ownership	Southeast	$1,000 (pooled fund)	Varies by fund	1% of real estate managed
Income-producing property	Commingled participation, managed accounts	National	$1 million	15-25%, depending on fund	Acquisition fee -- 1%; management fee based on project cost -- 1%; incentive fee -- 20% of cash flow after cumulative 10% return for investors
Income-producing property -- 58% (remainder in short-term securities)	Units in open-end fund	Midwest, Southwest, and West	$100,000	Income -- 13.6% (no appreciation realized to date)	1% of net assets
Income-producing property -- 80%; mortgages -- 20%	Direct placement of equity, pooled fund of secured profit participating notes on income real estate	Sunbelt and major metropolitan areas	Varies with fund -- $5,000-$100,000	Varies	Varies with fund -- 1% of assets to total incentive fee
Income-producing property --28 million; participating mortgages -- $22 million (market value)	Units in fund, direct ownership	National	Fund -- nominal; direct investment -- $2 million	Depends on program	Fund -- 1%; direct investment -- dependent on size
Income-producing property	Units in open-end fund, separate accounts	National with emphasis on West and Southwest	None in open-end fund	Open-end fund -- 13.64% (12/80)	Open-end fund -- 1.2% p.a.
Income-producing property -- 96%; mortgages -- 4%	Outright ownership, joint venture	National	$20 million initially	6-9% initial yield; 12-15% internal rate of return	Acquisition -- 1-1½% of gross purchase price; portfolio management -- ½% of asset value per annum; property management -- 2-5% of gross income per annum; development supervision -- ½% of project cost or purchase price
SA 8 as of 3/31/81: industrial -- 14.2%; office -- 29.2%; hotel -- 8.8%; retail -- 45.8%; research and development -- 2.0%	Units in open-end fund (SA 8)	National	$100,000	11.5% in 1980; 3.5% in first quarter 1981 (non-annualized)	SA 8: First $2 million -- 1.60%; next $3 million -- 1.45%; next $5 million -- 1.30%; next $15 million -- 1.15%; next $25 million -- .80%; excess over $50 million -- .45%
Income-producing commercial property	Limited partnerships, closed-end and commingled fund	Arizona, California, Georgia, Colorado, Nevada, Texas, and New Mexico	$150,000	Approx. 30% to date	Commingled fund -- 2¼% of net appraised value of the portfolio, including property management expense

Name and address	Person to contact, phone	Total assets under real estate portfolio management (millions)	Number of pension fund real estate clients	Total pension fund real estate assets under portfolio management (millions)
EQUITY INVESTORS, INC. 29001 Cedar Road Suite 325 Cleveland, OH 44124	Dan K. Silverberg President 216-442-4820	$85	10	$15
EQUITY PROPERTIES CORP. 25th Floor First American Center Nashville, TN 37238	James S. F. Boyd President 615/242-4417	$56	50	$40
FIRST EQUITIES CORP. 6201 Powers Ferry Road Suite 500 Atlanta, GA 30339	Arthur Jay Hayden Vice President 404/952-1500	$525	120	$525
FIRST FEDERAL SAVINGS 3003 North Central Room 406 Phoenix, AZ 85012	Anthony D. Falconieri Senior Vice President 602/248-3599	$1,980.0	10	$135
FIRST NATIONAL BANK IN DALLAS Box 83794 Dallas, TX 75283	Nathan O. Finke Vice President/Trust 214/744-8323	$333	38	$153
FIRST NATIONAL BANK OF ATLANTA P.O. Box 4148 Atlanta, GA 30302	David S. Graham Vice President 404/588-5104	$110	26	$30
THE FIRST NATIONAL BANK OF BOSTON 100 Federal Street Boston, MA 02110	Peter F. Tague, III Vice President 617/434-4560	Approx. $300	275	Approx. $300
THE FIRST NATIONAL BANK OF CHICAGO One First National Plaza Chicago, IL 60670	Larry G. Ginnegaw Vice President/Trust Department, 1-16-9 312/732-4151	$615	98	$317.7 (5/31/81)
FIRST NATIONAL BANK OF FT. WORTH P.O. Box 2260 Ft. Worth, TX 76113	Gerald Hartman, Jr. Vice President and Trust Officer 817/390-6996	$190	30	$40
GAVEY & CO., INC. 80 Park Avenue New York, NY 10016	James E. Gavey President 212/867-0130	$41	3	$1.2
GREAT-WEST LIFE ASSURANCE CO. 60 Osborne Street North Winnipeg, Man. R3C 3A5	Gary Coopland Director/Pension Investments 204/946-9342	$1,841[1]	65	$50.2
GRUBB & ELLIS PROPERTY SERVICES CO. 1333 Broadway Oakland, CA 94612	John French President 415-839-9600	$141.0	10	None[2]
JOHN HANCOCK MUTUAL LIFE INSURANCE CO. P.O. Box 111 Boston, MA 02117	Michael B. O'Toole Second Vice President 617/421-6168	$7,416 (12/31/80)	51 (12/31/80)	$353 (12/31/80)

[1]Includes assets managed by real estate development companies in which Great-West Life has interest.
[2]Pension fund clients are under portfolio management, but real estate investment has not yet been made.

Breakdown of assets into real estate holdings	Participation offered	Geographical diversification	Minimum investment	Return on investment (net of fee)	Fee
Investment real estate — 85%; joint venture — 15%	Partnerships only	Estate of Mississippi plus Texas	$750,000	Varies by partnership	Negotiated
Undeveloped land — 20%; income-producing property — 80%	Direct ownership	Southeast	$250,000	8%	Negotiated
Income-producing property	Units in closed-end, equity oriented limited partnerships	Southeast and West	$1 million	6-7% real above inflation (1975-80)	1% of the asset base
Not reported	90% interest in mortgage loan pools of residential or commercial loans	Arizona and California	$1 million	Market rate — usually 50 basis points over GNMA yields in cash market	Negotiated servicing fee
Office buildings — 40%; shopping centers — 30%; warehouses — 30%	Pooled fund, individual property acquisition	Sunbelt	$50,000	10.53% for 1980	1%
Income-producing property, mortgages, undeveloped land, timberland	Units in pooled timberland fund	Southeast	Timberland fund — $250,000	5-11% real above inflation	1.2% (.25% cash portion)
Real estate — $140 million; individual — $93 million; mortgages — $85 million	Units in open-end pooled fund	National	None	Approx. 13%	1% of assets of participating trust
Real Estate Fund F: income-producing property including less than 10% convertible mortgages	Deposits in open-end fund	National	$500,000	Performance is not reported net of fees; 15.4% total return (12/31/81)	1.2% of real estate
Mortgages — 25%; real estate holdings — 75%	Individual ownership, pooled funds, joint ventures	National with emphasis on Texas	Open — criteria varies by participation	Open	Varies by participation — fee schedule furnished upon request
Income-producing residential multi-family apartments	Limited partnerships	National	$25,000-$100,000	20-50% annually including appreciation	5-15% of distributions, including profits
Retail — 30%; office — 30%; industrial — 30%; miscellaneous — 10%	Open-end pooled fund	Canada	Not available; subject to investment management fee	12.5% on income basis only; capital appreciation not yet available (fund initiated 6/30/80)	1.26%
Land — 3%; income-producing property — 80%; mortgages — 17%	Negotiable	California, Nevada, Texas, Southeast, and New York	$2 million	15-20% (estimated)	Approx. 1% asset management fee
Income-producing property — 97.6%; mortgages — 2.4% (12/31/80)	Open-end commingled fund	National	$250,000	14.0% annualized time-weighted rate of return, including interest and realized and unrealized capital gains and losses, assuming reinvestment of all investment return (12/28/76-12/31/80)	1%

Name and address	Person to contact, phone	Total assets under real estate portfolio management (millions)	Number of pension fund real estate clients	Total pension fund real estate assets under portfolio management (millions)
INVESTMENT COUNSEL CO. 56 East Pine Street Orlando, FL 32801	Byron W. Giltz Vice President 305/841-6241	$250	4	$20
JMB INSTITUTIONAL REALTY 875 North Michigan Avenue Suite 3900 Chicago, IL 60611	John S. Lillard President 312/440-5042	$2,000	24	JMB group trust — $100
JONES LANG WOOTTON 499 Park Avenue New York, NY 10022	R. Gary Barth Partner 212/688-8181	$130	3	$85
THOMAS L. KARSTEN ASSOCIATES 10960 Wilshire Boulevard Los Angeles, CA 90024	A. Redmond Doms, Jr. Executive Vice President John M. Lundsten Senior Vice President 213/473-1128	Direct — $110[3]	Direct — 2[3]	Direct — $110[3]
LANDAUER ASSOCIATES, INC. 200 Park Avenue New York, NY 10166	R. Malcolm Bauer Vice President 212/687-2323	$350	3	$350
LANDSING 431 Burgess Drive Menlo Park, CA 94025	Ronald D. Roberts Vice President/Marketing 415/323-8313 800/227-8228	$200	7	$20
LaSALLE STREET FUND LaSalle Partners, Inc. 208 South LaSalle Street Chicago, IL 60604	Kenneth M. Campia President 312/782-5800	$400	Approx. 15	$300
LEHNDORFF MANAGEMENT LTD. 3737 Noble Suite 200 Dallas, TX 75204	M. Thomas Lardner Executive Vice President and General Manager 214/670-0400	$1,200 in North America	1	$10
LIEBERMAN COMPANIES 554 Middle Neck Road Great, Neck, NY 11023	Bruce R. Lieberman President 516/466-6565	$30	2	$2
LOEB PARTNERS REALTY 521 Fifth Avenue New York, NY 10175	Gary L. Naughton Vice President 212/883-0371	$250	4	$100
THE MADSEN CORP. 502 Atlas Avenue Madison, WI 53707	James G. Martell Director 608/221-3432	$150	3	$5
JOHN McMAHAN ASSOCIATES, INC. 201 California Street #400 San Francisco, CA 94111	Joseph Azrack Vice President 415/433-7770	$120	1	$25
MERRILL LYNCH HUBBARD Two Broadway New York, NY 10004	James T. Foran Vice President 212/908-8443	$500	9	$400
METROPOLITAN LIFE INSURANCE CO. One Madison Avenue New York, NY 10010	Peter Braun Assistant Vice President 212/578-2937	$14,000	11	$140

[3]Pooled fund to be offered 10/81.

Breakdown of assets into real estate holdings	Participation offered	Geographical diversification	Minimum investment	Return on investment (net of fee)	Fee
Mortgages — approx. 20%; land — 50%; income-producing property — 30%	Negotiable, depending on particular investment	Southeast with emphasis on Florida	$500,000-$5 million range	12%+	1.25% annually of equity invested in real estate
Income-producing property	Equity interest in income-producing properties held in JMB group trust	National with emphasis on Sunbelt	$1 million from new customers; $150,000 from existing customers	9.8% for JMB group trust (1980)	1¼% of market value of all real estate assets as determined quarterly
Office buildings — 80%; shopping centers — 20%	Direct investment	National	$3 million	Varies	Depends upon services provided
Income-producing property; mortgages	Varies	National with emphasis on West	$1.5 million	Varies	Direct investment — negotiable
Income-producing property	Direct investment[3]	National	$5 million	Varies	Varies[3]
Income-producing real estate, garden apartments, shopping centers, office/ industrial buildings	Closed-end equity trust, participating debt, fee ownership	West	Negotiable	Varies	Negotiable
Income-producing property	Shares in commingled fund	Major metropolitan areas throughout U.S.	$250,000	N/A	1¼% of net real estate assets
Income-producing property — 85%; undeveloped land — 10%; mortgages — 5%	Varies	National	$2.5 million	Varies	Varies
Income-producing property, mortgages	Flexible to suit needs of investor	Southeast and Southwest	$500,000	Varies	Negotiable
Income-producing property — 90%; undeveloped land — 10%	100% equity ownership	Continental U.S.	$1 million	Varies	Negotiable
Income-producing property — 98%; mortgages — 2%	Varies	Midwest	$500,000	Varies	None
Income-producing property — 70%; joint venture development of income properties — 20%; undeveloped land — 10%	Separate account	National with emphasis on rapidly growing metropolitan areas	$20 million initially	6% or greater real return above inflation	Negotiable
Income-producing property — 40%; mortgages — 60%	Direct portfolio ownership	National	Debt portfolios — $5 million; equity portfolios — $10 million	Depends on client policy	Negotiated
100% equity participation	Open-end commingled fund	National	$100,000	14.3% (3 years ended 3/31/81)	Investment management fee of 1%, plus normal contract charges

[3]Pooled fund to be offered 10/81.

Name and address	Person to contact, phone	Total assets under real estate portfolio management (millions)	Number of pension fund real estate clients	Total pension fund real estate assets under portfolio management (millions)
MUTUAL OF NEW YORK 1740 Broadway (25-3) New York, NY 10019	Stephen R. Cunningham Assistant Director of Real Estate Investment 212/708-2027	$6.6	3	$6.6
NORTH AMERICAN LIFE ASSURANCE CO. 105 Adelaide Street West Toronto, Ont. M4W 3G9	Leo S. Frank Director/Pension Investment Services 416/362-6011	$315	13	$15
NORTH CAROLINA NATIONAL BANK One NCNB Plaza Charlotte, NC 28255	Robert L. Reynolds Vice President 704/374-8379	$200	328	$140
PAINE WEBBER PROPERTIES, INC. 100 Federal Street Boston, MA 02101	S. Douglas Weil President 617/423-8150	$50	500	$5
THE PECKHAM BOSTON CO. Four Longfellow Place Boston, MA 02114	John M. Peckham, III President 617/523-4440	$30	4	$15
PHOENIX MUTUAL LIFE INSURANCE CO. One American Row Hartford, CT 06115	Joel C. Cohan Vice President 203/278-1212	$124	Negotiations underway with 3 clients	$12.5 (7/15/81)[4]
PREFERRED FINANCIAL CORP. 18321 Ventura Boulevard Tarzana, CA 91356	Peter Saltman Director/Special Industries Group 213/881-9032	$155	82	$4+
PROPERTY CAPITAL ADVISORS, INC. 200 Clarendon Street Boston, MA 02116	John A. Cervieri, Jr. President 617/536-8600	$300+	40+	$200+
THE PRUDENTIAL INSURANCE CO. OF AMERICA Prudential Plaza Newark, NJ 07107	R. H. Dunphy Vice President 201/877-7884	$20,113 (3/31/81)	343	$2,911.9
PRUDENTIAL MORTGAGE BANKERS & INVESTMENT CORP. 2067 Mt. Diablo Boulevard Walnut Creek, CA 94596	William Kleisath President 415/933-6346	$24	34	$19
REPUBLIC NATIONAL BANK OF DALLAS One Dallas Centre P.O. Box 241 Dallas, TX 75221	David J. Pittman Vice President and Trust Officer 214/653-6506	$205	17	$41

[4]Assets committed from Phoenix Mutual's general pension account.

Breakdown of assets into real estate holdings	Participation offered	Geographical diversification	Minimum investment	Return on investment (net of fee)	Fee
Income-producing property	Units in Pooled Account #7	National	$100,000	Not yet available (fund instituted 5/14/81)	1% of net assets, charged quarterly
Income-producing property	Units in pooled account	Canada	$250,000	$10.85 on 5/81 (fund started 9/30/80 @ 10.00)	.78% surcharge over and above regular investment management fees
Income-producing commercial and industrial — 70%; development land — 10-20% (remainder in cash equivalents)	Commingled fund, individually structured account	Southeast	None for commingled fund	20.1% (1980)	1.2% of assets annually
Income-producing property	Units in limited partnerships	National	$5,000	Varies	Prospectus available from Paine Webber offices
Income-producing property	Depends on client requirements	National with emphasis on Northeast	$1 million	Varies dependent on risk	Negotiable
Income-producing property: offices — 51%; office/warehouse — 14%; shopping centers — 20%; apartments — 4%; hotels — 10%	Units in commingled equity separate account (RESA)	National	$100,000	No record history to date on RESA[5]	1%
Income-producing property — $130 million; mortgages — $5 million; undeveloped land — $20 million	Limited partnerships, joint venture	California, Nevada, Texas, Arizona, and North Carolina	Varies — as low as $5,000	In excess of 45% (all properties and programs since 1973)	Varies
Income-producing property	Varies	Continental U.S.	$1 million +	Varies	Negotiable
PRISA: properties and net partnership interests in properties — $2,252.7 million; mortgage loans — $22.5 million (3/31/81); PRISA II: properties and net partnership interests in properties — $120.3 million; mortgage loans — $11 million (3/31/81) — remainder of assets in both accounts in cash and short-term investments)	Contributions to PRISA and PRISA II	PRISA — National; PRISA II — N/A	PRISA: $50,000 on valuation date with annual contributions of $200,000; PRISA II: $500,000	PRISA: 3.4% for quarter ended 3/31/81; 16.8% for year ended 3/31/81; PRISA II: 3.4% for quarter ended 3/31/81; 14.5% for period from 7/18/81 (inception) to 3/31/81	Investment management fee (both accounts) — annual rate of 1¼% of net assets other than short-term investments and cash
Second deeds of trust, 1-5 year term, on single-family residences	100% ownership, monthly payments, in fully managed 1-5 year term notes and deeds of trust	California	$100,000	18%+	None
Income-producing property	Units in open-end commingled fund	Southwest and Southeast	Individual plan must have capacity to grow to $1.0 million participation in real estate equity fund in 3-year period	Varies with specific investment mode and method of calculation; details available upon request	Maximum of 1.2% of market value

[5]Representative real estate return at Phoenix 1976-80 is 19.8%.

Name and address	Person to contact, phone	Total assets under real estate portfolio management (millions)	Number of pension fund real estate clients	Total pension fund real estate assets under portfolio management (millions)
RREEF 650 California Street Suite 1800 San Francisco, CA 94108	Paul Sack Real Estate Principal 415/781-3300	$720	24	$710
SAMOTH REAL ESTATE CORP., LTD. 801-345 Quebec Street Victoria, BC V8V 1W4	Richard D. B. Talbot President 604/388-5123	$200	10	$50
SAN ANTONIO SAVINGS P.O. Box 1810 San Antonio, TX 78296	Ray C. Wilson Senior Vice President 512/340-7481	$75	2	None[2]
SAVAGE/FOGARTY COS., INC. 699 Prince Street Alexandria, VA 22314	Jeffrey H. Riddel Vice President 703/549-1160	Approx. $150	5	$70
SCUDDER REALTY ADVISORS, INC. 333 South Hope Street 37th Floor Los Angeles, CA 90071	David R. Bryant Senior Vice President 213/628-1144	$300+	26	$300+
SMITH, BARNEY REAL ESTATE CORP. 1345 Avenue of the Americas New York, NY 10105	Thomas J. Gochberg President 212/399-6135	$305	36	$55
SUN BANK, N.A. P.O. Box 3631 Orlando, FL 32802	David R. Pierce Trust Real Estate Officer 305/237-4689	Approx. $50.0	60	Approx. $3.0
RALPH C. SUTRO CO. 4900 Wilshire Boulevard Los Angeles, CA 90010	H. Lawrence Hull Vice President Dorothy J. Wilson Vice President 213/937-4000	$2,403.6	32	$323
THIRD NATIONAL BANK Trust Real Estate Department Nashville, TN 37244	Campbell Brown Vice President & Trust Real Estate Officer Geoffrey C. Mitchell Assistant Vice President & Trust Real Estate Officer 615/748-4610	$65	100	$10
TOWNE PROPERTIES LTD. 2261 Francis Lane Cincinnati, OH 45206	Marvin Rosenberg Partner 513/861-3375	$75	4	$2
THE TRAVELERS INSURANCE CO. One Tower Square Hartford, CT 06115	Thomas E. Keating Vice President 203/277-7777	$7,000	Separate Account "R" — 58	Separate Account "R" — $268

[2]Pension fund clients are under portfolio management, but real estate investment has not yet been made.

Breakdown of assets into real estate holdings	Participation offered	Geographical diversification	Minimum investment	Return on investment (net of fee)	Fee
Income-producing property	Units in closed-end commingled funds	National	$15 million over 3 years	25-33% (1980)	1/10 of 1% per month; 1.2% per annum
Income-producing property — $150 million; mortgages and undeveloped land — $50 million	Negotiable	Western states and provinces	$1 million	Negotiable	Negotiable
Mortgages — $35 million; apartments — $20 million; residential land — $10 million; commercial land — $10 million	Varies	Texas	$1 million	Varies	Negotiable
Income-producing property, land	Varies according to client's needs	Emphasis on Greater Washington, DC, area	Varies	Varies	Varies
Mortgages on income-producing property — 52%; mortgages on residential property — 26%; equity in income-producing property — 22%	Individual client portfolios	West Coast	$50 million over 5 years	Varies	0.2-0.5% per annum depending on investment type plus origination fees
For real estate fund only: income-producing property — 94%; first mortgage (as result of sale of property) — 6%	Units of participation in commingled fund	Midwest, East, and Southeast	$250,000 initially	27.2% for 1980 (14.8% in cash)	Based on capital contributions and cash distributions to unitholders
Income-producing property	Shares in fund	Florida and Southeast	$1,000	N/A — new fund	Annual fee of .0075
Mortgages on income-producing property — $130 million; mortgages on residential properties — $193 million	Short-term debt instruments, intermediate and long-term debt, and/or equity instruments	National	$1 million	Varies	Negotiable
Income-producing property	Units in pooled fund	Southeast and Southwest	$1,000 (1 unit)	11% with 3% appreciation	1% of total value of fund
Income-producing property	Partnerships, mortgages	Midwest, Florida, and Colorado	$10,000	14%+	Negotiated
Both equity and debt commitments in offices, office/warehouses, shopping centers, agricultural, apartments	Separate Account "R" — equity (properties), debt (mortgages), or balanced (discretionary mix of equity and debt investments)	National	$100,000	Equity — 14.38%; mortgage — 6.78%; balanced — 11.51% (12 months ending 5/31/81, net of all expenses)	Investment management fee — 1% annually based on net assets

Name and address	Person to contact, phone	Total assets under real estate portfolio management (millions)	Number of pension fund real estate clients	Total pension fund real estate assets under portfolio management (millions)
TRAWEEK INVESTMENT CO., INC. 330 Washington Street Suite 200 Marina del Rey, CA 90291	Frank E. Carroll Executive Vice President 213/822-9157	$139.6	200	$131.6
WACHOVIA BANK & TRUST CO., N.A. P.O. Box 3099 Winston-Salem, NC 27102	Nicholas L. Verano Vice President Deborah L. Tate Trust Officer 919/748-5906	$411	300	$251 (4/30/81)
WALLACE ASSOCIATES 1518 Walker Bank Boulevard Second South & Main Street Salt Lake City, UT 84111	Hugh S. West Vice President & Marketing Director 801/355-1791	$25	10	$1
WELLS FARGO INVESTMENT ADVISORS 475 Sansome Street, #975 San Francisco, CA 94111	Thomas W. Richardson, Jr. Vice President 415/396-5094	$660	Approx. 100	$150
YORK ASSOCIATES, INC. Suite 300 4801 Massachusetts Avenue, NW Washington, DC 20016	John C. York, Jr. President 202/362-1400	$800+	1	$20+

Landauer

REAL ESTATE INVESTMENT ADVISORS

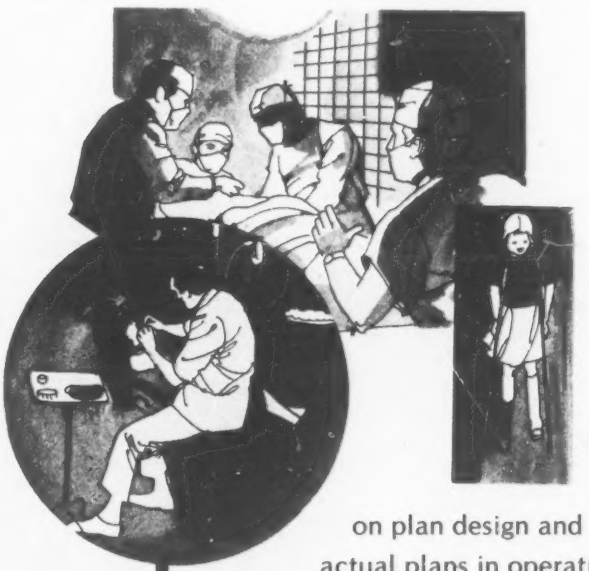
CLIENTS INCLUDE SEVERAL OF THE WORLD'S MAJOR PENSION FUNDS

For additional information regarding the firm's services, please communicate with:

Patrick J. Callan
Senior Vice President
Landauer Associates, Inc.
200 Park Avenue
New York, N.Y. 10166
(212) 687-2323

Offices in Atlanta, West Palm Beach, Houston, Los Angeles & Santa Ana

Breakdown of assets into real estate holdings	Participation offered	Geographical diversification	Minimum investment	Return on investment (net of fee)	Fee
Income-producing property	Joint venture, limited partnerships	California	$2,000	22.7% average internal rate of return	Front end — 5% of capital subscribed
Rental property — $72.0 million; land — $9.2 million; Atlantic land stock — $2.1 million; notes and mortgages — $1.9 million (4/81 — remainder in cash and demand notes committed for construction)	Equity participation	Chicago, Houston, Phoenix, Kansas City, San Diego, Atlanta, Los Angeles, San Francisco, Denver, Orlando	$100,000	17.9% (1980)	Annual base fee — $300; real estate management fee — 1-1/8%; cash — ¼%
Income-producing property — 40%; mortgages — 10%; undeveloped land — 50%	Individual ownership, joint venture, limited partnerships	Utah	$5,000	20% (10-year average)	Services expensed or 1.25% maximum
Income-producing property — 95%; land — 5%	Units in commingled fund, separate accounts	West and South	$100,000	16.5% (1980)	1.25% of net assets
Income-producing property	Equity in income-producing property	National	$5 million	9.5%	Negotiable



Could your employee benefit plans be more cost effective?

The *EBPR Research Reports* can help. This weekly loose-leaf service concentrates on plan design and administration, using numerous examples of actual plans in operation.

Find out how your benefit operation can be more cost efficient—read the *EBPR Research Reports.*

Just send us the coupon at right to receive more information about the comprehensive services available in the *EBPR Research Reports.*

Charles D. Spencer & Associates, Inc.
222 W. Adams Street
Chicago, IL 60606 PW-9

Please send me information about the EBPR Research Reports

Name _____
Title _____
Company _____
Address _____
City _____

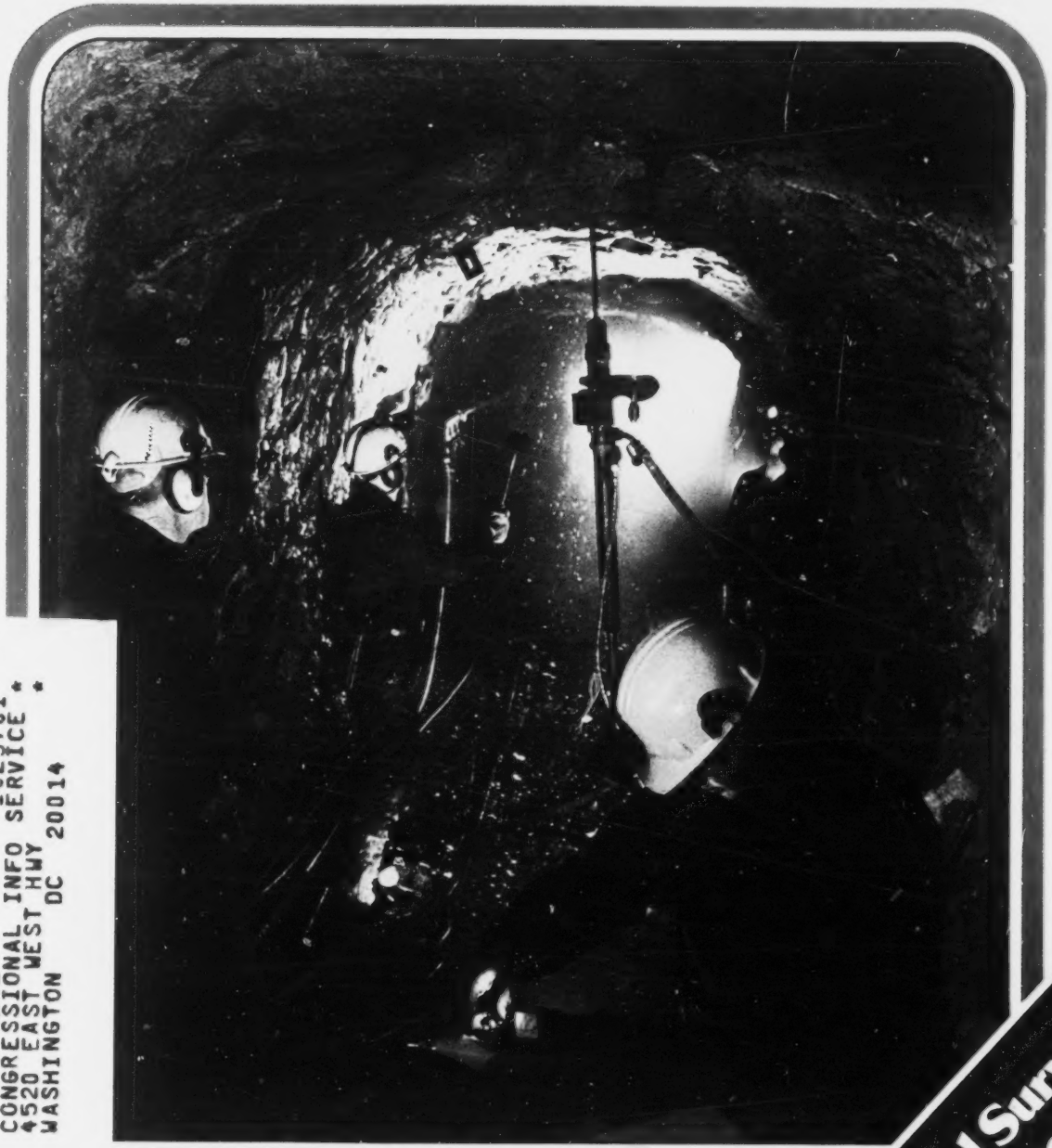
OCTOBER 1981

-/C 2125-1

Pension World

The Magazine for Plan Sponsors and Investment Managers/A Publication of Communication Channels, Inc.

Value Rules INCO Fund



0 PN
A SCHWARZ 1025701
CONGRESSIONAL INFO SERVICE
4520 EAST WEST HWY
WASHINGTON DC 20014

State Funds Investing in Real Estate

Flexible Benefits in Action

8th Annual Survey of State Retirement Systems

Pension World

October 1981
Volume 17 Number 10

The Magazine for Plan Sponsors and Investment Managers/A Publication of Communication Channels, Inc.

Features

INCO's value-oriented investment philosophy by Ronald Derven **12**
The world's leading producer of nickel is embarking on an innovative structure to manage its nearly $1 billion employee benefit funds while continuing a highly successful investment approach.

Public pension funds: major source of capital? by Leslie Ellen Wohlman **16**
The in-house investment managers of 10 of the country's largest state retirement systems talk candidly about real estate — how they utilize it now and what prospects they see for its future in their portfolios.

Flexible Benefits — Part II: Planning and implementing flexible benefit plans by Ronald Derven **23**
Until recently, few firms opted for "flex." Now more than 70 firms are testing flexible systems. Several pioneers relate what might be a wave of the future.

Social accountability in total return by Eugene Burroughs **29**
Social/political investing has many titles, according to the director of the investment department for the International Brotherhood of Teamsters; but whatever its name, this is a subject to follow closely.

New tax laws mean more money and more choices by Everett T. Allen, Jr. **35**
ERTA — The Economic Recovery Tax Act of 1981 — touches vast and diverse segments of American business. A benefits consultant discusses key issues that employers should consider as the impact of the legislation is felt.

Urban Institute's report on state and local pensions by Thomas J. Cavanaugh and Richard C. Murphy **39**
The Future of State and Local Pensions is a 579-page report focusing on the present status of public systems. However, state and local officials should proceed with caution before using the report to justify change — for reasons these actuaries carefully document.

What Every Fiduciary Should Know: The impact of the new tax legislation in compensation and employee benefit plans by Jeffrey D. Mamorsky and Leo Brown **45**
In analyzing the key amendments that will affect employee benefit plans, *Pension World*'s legal column addresses such issues as constructive receipt, incentive stock options, collectibles, and ESOP revisions.

Pension World Basics: Defined contribution plan participant recordkeeping by Michael Epstein **50**
To comply with Federal regulations, individual accounts must be maintained for each plan participant. Efficient recordkeeping is essential, and a member of Citibank's employee benefit funds department points out what to look for in sophistication and flexibility when selecting or updating a system.

8th Annual Survey of State Retirement Systems **53**
Pension World's exclusive analysis of 90 public retirement systems show how state portfolios are structured, where the money is, and who's managing it.

Departments

Guest Editorial	4	Washington Newsletter	8	Meetings & Conventions	72
International Pension World	6	Pension News	66	Pension Resources	73
		Pension People	70		

Cover: **Sound pressure levels from a prototype muffler are recorded at INCO's Thompson Mine in Thompson, Manitoba. INCO also carefully evaluates available investment data to run its pension fund. How its system operates begins on page 12.**

BPA

ISSN 0098-1753

Pension World is published monthly by Communication Channels, Inc., Tim Gold Blyth, Chairman of the Board; B.J. Kotsher, President; Russell Richards, Secretary; John Moebius, Treasurer. Editorial and advertising offices at 6285 Barfield Road, Atlanta, GA 30328. Telephone (404) 256-9800. *Pension World* is a registered trademark of Communication Channels, Inc.

© 1981 by Communication Channels, Inc.

Second class postage paid at Atlanta, GA, and at additional mailing offices. Subscription rates: U.S.A.: 1 year, $34; 2 years, $59; Canada and Mexico, 1 year, $37; Foreign, 1 year, $42. Single copies, $3.00. The opinions expressed by authors and contributors to *Pension World* are not necessarily those of the editors or publisher. Articles appearing in *Pension World* may not be reproduced in whole or in part without the express permission of the publisher. Microfilm copies of *Pension World* are available from University Microfilms, 300 North Zeeb Road, Ann Arbor, MI 48106. Postmaster: Please send form 3579 to Circulation Department, *Pension World*, 6285 Barfield Road, Atlanta, GA 30328.

Public pension funds: major source of capital?

Public pension funds are beginning to expand more vigorously into real estate. To gather up-to-date and accurate information on real estate investment by these funds, personal interviews were conducted in June and July, 1981, with the in-house investment advisors of 10 of the largest state funds in the country, representing $73 billion in assets.

The investment advisors interviewed were: Melvin W. Petersen, chief of investments, Public Employees Retirement Systems of California; William A. Amerman, director of investments, and Robert Peck, administrator/Mortgage Servicing Division, Michigan State Employees Retirement Systems; Madelon Talley, director/investments and cash management, and Edward Majewski, director of real estate investments, New York State Common Retirement Fund; Lowell Blom, mortgage officer, and Edward Reno, investment officer, New York State Teachers Retirement System; Christopher S. Moore, deputy treasurer/director of Investment & Banking Division, North Carolina Retirement Systems; Robert A. McLaughlin, assistant director/investment officer, Public Employees Retirement System of Ohio; Frances Crimbly, assistant secretary, Pennsylvania State Employees Retirement Fund; Andy Sheffler, executive director, Pennsylvania Public School Employees Retirement System; Clark Manning, investment officer, and Joe Perrone, assistant investment officer, Teacher Retirement System of Texas; and Kenneth Codlin, executive director, and Robert Zobel, investment director, State of Wisconsin Investment Board.

Today's asset diversification

As shown in Chart I, the state funds have invested the majority of their holdings — ranging from 65 to 88 percent of their total assets — in fixed-income securities. The largest percentage of the fixed-income securities is in corporate bonds, followed by Federal government and agency bonds, and government-insured mortgages.

Conventional and net lease credit mortgages presently constitute a nominal amount of most of the funds' assets. However, the three largest funds, Public Employees Retirement Systems of California (PERS/California) and the two New York funds, have invested significant amounts in mortgages. The New York State Teachers Fund has 10 percent in conventional mortgages and 4 percent in credit mortgages, the New York State Common Retirement Fund, 15 percent in conventional mortgages, and PERS/California has 3 percent of its $14.7 billion fund in credit mortgages.

Equity investments presently consist almost exclusively of common stock holdings. Currently, none of these funds has significant holdings in real estate equity investments, primarily because of statutory restrictions.

Tomorrow's investments

Chart II outlines the projected asset diversification in 1985 of seven of these state funds. Three major changes are predicted.

1. *A significant increase in real estate holdings, with an emphasis on mortgages.* As an illustration, the Public Employees System of Ohio, the Pennsylvania State Employees Fund, and the Texas Teachers Fund presently have no conventional mortgages in their portfolios. By 1985, these funds plan to invest 5 to 10 percent of their total assets in conventional mortgages.

In addition, most of the states plan to increase significantly their investments in net lease credit mortgages. Michigan, with none of these investments presently, due to statutory limitations, plans to have $160 million of these mortgages by 1985. Investments in net lease credit mortgages are based on both the credit worthiness of the tenant and the intrinsic value of the real estate. Since these vehicles share the characteristics of a corporate bond and mortgage security, they will enable pension fund managers to utilize their financial acumen gained in the stock and bond markets.

Although none of the surveyed state funds currently has equity investments in real estate, many of them, including PERS/California, Michigan, the New York State Common Fund, the Ohio Employees Fund, and the Pennsylvania State Employees Fund, plan to in the future. PERS/California intends to have 5 to 10 percent of its total 1985 projected assets placed in equity real estate investments — a projected $2.5 billion.

2. *A significant decrease in corporate bond holdings.* Due to poor performance of bond portfolios in recent years and continuing inflation, most of the state funds plan to decrease substantially their corporate bond holdings. The Public Employees System of Ohio, for example, intends to decrease its percentage of corporate bonds from 62.4 percent of current total assets to 38 percent in 1985, and Michigan plans to reduce its holdings from 42.3 to 25 percent over the same period.

by **LESLIE ELLEN WOHLMAN**
Regional Vice President
Integrated Resources, Inc.
New York, N.Y.

Chart I Asset Diversification — Today

	Calif.	Mich.	N.Y. Common	N.Y. Teachers	North Carolina	Ohio	Penn. School	Penn. State	Texas	Wisc.
	Percentage of Total Assets — 1981									
Fixed Income										
Federal Government and Agency Bonds	10.0%	16.6%	34.9%	20.0%	15.3%	4.2%	7.0%	4.1%	16.0%	14%
Corporate Bonds	38.9	42.3	16.8	25.0	62.4	58.7	46.0	50.1	27.0	40.0
Short-Term Investments (Notes, Bills, C.D.'s, etc.)	2.5	11.2	3.7	6.0	1.8	11.7	8.0	8.1	2.0	10.0
Government-Insured Mortgages	19.2	14.5	4.0	4.0	8.3	3.8	18.0	18.5	25.0	4
Conventional Mortgages	0	2.2	15.0	10.0	—	—	—	—	1.0	4
Net Lease Credit Mortgages	3.0	—	.6	—[1]	—	—	—	.4	1.0	2
Other	3.3	—	.7	0	—	—	—	—	—	—
Fixed Income as % of Total Assets	76.9	86.8	75.7	65.0	87.8	78.4	79.0	81.2	72.0	74
Equity										
Common Stocks	23.1	13.2	24.3	33.0	12.2	21.6	21.0	18.3	28.0	26
Real Estate	—	—	—	—	—	—	—	.5	—	—
Other	—	—	—	2.0	—	—	—	--	—	—
Equity as % of Total Assets	23.1	13.2	24.3	35.0	12.2	21.6	21.0	18.8	28.0	26
Total Assets (billions)	$14.7	$ 5.8	$14.5	$ 8.7	$ 5.0	$ 5.1	$ 3.1	$ 4.5	$ 6.1	$ 4.8

[1]Net lease credit mortgages are included in Corporate Bonds.

Chart II Asset Diversification — Tomorrow

	Calif.	Michigan	N.Y. Common	Ohio	Penn. State	Texas	Wisconsin
	Percentage of Total Assets — Projected 1985[1]						
Fixed Income							
Federal Government and Agency Bonds	6%	3%	20%	5%	5-10%	15%	10%
Corporate Bonds	30-33	26	18	38	30-32	20	40
Short-Term Investments (Notes, Bills, C.D.'s, etc.)	2.1	10	2	2	0-5	2	5
Government-Insured Mortgages	19.1	10	3	5	13	25	5
Conventional Mortgages	1-2	4	15	5	5	5-10	3
Net Lease Credit Mortgages	4-5	2	—	—[2]	5	3	2
Other	3.0	—	5	—	—	—	—
Fixed Income as % of Total Assets	65-70	60	63	55	60-70	70-75	65
Equity							
Common Stocks	25	38	35	35	25-35	25-30	30
Real Estate	5-10	2	2	10	5	—	5
Other	—	—	—	—	—	—	—
Equity as % of Total Assets	30-35	40	37	45	30-40	25-30	35
Total Assets (billions)	$25	$8.2	$25.1	$9.4	$5	$10	$8

[1]Information was not available for the New York State Teachers Retirement System, the North Carolina Retirement Systems, and the Pennsylvania Public School Employees Retirement System.
[2]Included in Conventional Mortgages.

3. *An increase in common stock holdings.* Although many states have statutes that restrict the percentage of common stock holdings to 25 percent of their total portfolios, many state legislatures can be expected to enact laws that will change this limitation. The Public Employees Retirement System of Ohio plans to increase its common stock holdings from 12.2 percent of its current portfolio to 35 percent of its 1985 base, and Michigan intends to increase its stock investments from 13.2 percent to 38 percent in 1985.

Moving into real estate

Why are these funds, representing billions, planning to make substantial investments in real estate?

Frances Crimbly of the Pennsylvania State Employees System describes the rationale:

> Until 1979, the Pennsylvania State Employees Fund's participation in real estate was limited to government insured residential mortgages and FHA project loans. Mortgage investment was viewed simply as an alternative to bond investment. Our legislative authority for equity real estate is

quite limited, and up to 1979, we were able to acquire sufficient product in the government insured market to satisfy our perceived needs.

This philosophy began to change in 1979, and at the beginning of 1981, the Board adopted an asset allocation plan that calls for a steadily increasing investment, both in dollar and percentage terms, to both mortgage and equity investment in real estate. Current targets for 1985 are 5 percent equity real estate, 5 percent mortgage-backed securities, 14 percent residential mortgages, and 11 percent commercial mortgages — for a total of 35 percent of assets. This very significant shift in asset allocation was due, in part, to the emergence of new vehicles in the real estate market. But the attraction for real estate investing was strengthened by the emergence of a fairly liquid market for mortgage-backed securities, by the wider availability of debt instruments with equity "kickers," and by the greater flexibility of term and call provisions.

Many of the state retirement fund investment advisors responded with skepticism to new mortgage vehicles, including the SAM (Shared Appreciation Mortgage), GPAM (Graduated Payment Adjustable Mortgage), and RRM (Renegotiable Rate Mortgage).

Clark Manning of Texas: "We have not as yet seen proposals attractive enough to cause us to vary from the fixed-rate mortgage."

Robert McLaughlin of Ohio: "It does not make sense to give up rate today for tomorrow's future promise. The problem is that you are giving up current cash income today for a promised future appreciation. Considering the time value of money, that appreciation has to be considerable to account for that initial lower cash flow during the early years of operation. Therefore, an investor might be better off locking in a secure, fixed-rate mortgage rather than a future promise that might only be 'pie in the sky.' "

Some of the larger funds are actively seeking investments whereby they can share in the increased cash flow from a building.

Kenneth Codlin of Wisconsin: "We have the advantage of being long-term lenders and can benefit from opportunities in the marketplace. We strategically operate in a long-term mode and should be careful about shortening terms when rates are at historical highs."

On the other hand, some of the larger funds are actively seeking investments whereby they can share in the increased cash flow from a building. Both Ed Majewski of the New York State Common Fund and Lowell Blom of the New York State Teachers Fund have investments that feature fixed minimum interest rates with "kicker" participation in a percentage of the buildings' revenues. They believe this type of investment offers an inflationary hedge by sharing in the increased cash flow from the building.

PERS/California, another example, has recently extended a $70 million loan for a Disneyland hotel. In addition to the coupon rate of 14.5 percent, the system is to receive 12 percent of gross room rentals in excess of $23 million. The borrower has guaranteed a minimum internal rate of return of 16 percent.

However, it was indicated that sometimes these "kickers" end up as cosmetic dollars, thereby creating possible litigation problems.

Net lease credit mortgages

Most of the state funds interviewed plan to increase their investments in net lease credit mortgages. Mel Petersen of California has invested in these mortgages for many years. In his opinion, these investments offer three major advantages:

1. *High quality and security.* They provide not only the assignment of rents from a major credit tenant, but also the collateral of the real estate as additional security. For example, in the early 1970's California had extended a loan on a W. T. Grant store located in San Diego. When W. T. Grant went bankrupt, the landlord was able to lease the space at a higher rent to a major West Coast retailer. California's net lease credit investment was thereby totally protected by the intrinsic value of the real estate. If the fund had invested in a W. T. Grant public debenture, the bankruptcy would have relegated it to the position of a general creditor, getting back only a small percentage of its original investment.

2. *Refunding protection.* Typically, a minimum 10-year, and as long as 15-year, refunding protection is obtained in a net lease credit mortgage; whereas, most public utility and industrial issues offer no more than respectively, a five- and 10-year refunding protection. When rates decline, this increased call protection may be very valuable.

3. *Higher yield.* A higher coupon can be obtained in a private placement as opposed to a public debenture. The difference in payment frequency, i.e., monthly vs. semi-

The bottom line in quality real estate investments for institutions and pensions is...

JEFFREY H. TAMKIN, INC.
As national real estate developers we have completed more than 200 projects in 36 states and Canada.

Headquarters Office
10960 Wilshire Boulevard
Los Angeles California 90024
213-879-1342

annually, substantially increases the effective yield, especially at current rate levels.

Equity investing

Most of these 10 state funds plan to commit only a small percentage of their total real estate investments to equity positions as opposed to mortgages (see Chart II). The rationale, conservatively stated, is that there is no promise the golden decade of real estate in the 70's will be repeated in the 80's, 90's, and thereafter. Says Robert McLaughlin of Ohio, "Why is real estate so popular today? Is it history or future? We feel that it is a result of history. Overall, financial assets (stocks and bonds) over the next five years will likely yield a better return than tangible assets."

Future value will only be the amount that the next buyer is willing to pay. The real estate market has indeed experienced periodic slumps, such as the collapse of the real estate investment trusts, (REIT's) a decade ago. New York City real estate prices, for example, plummeted in the mid-1970's for reasons that included overbuilding and the city's financial crisis. Because such downward price movements are always possible, those who mistrust the recent real estate boom are reluctant to commit substantial dollars to equity positions.

Statutory changes

State pension funds have historically had extremely restrictive investment policies, which resulted in the virtual allocation of funds by legislation. New York State's list of investment rules, for example, is 103 pages long. The rules prohibit public pension fund managers from buying stocks that are sold over the counter or that have missed paying a dividend in the last five years. New York Governor High Carey has proposed replacing the cumbersome guidelines with the "prudent man" test that is common in the private investment community.

Many states have recently proposed new legislation that, if enacted, will substantially broaden their real estate investment powers. Ohio's recently adopted proposal LSC 114-743, typical of those being considered by many of the other states, reads as follows:

> At present all the retirement system laws authorize their board to invest in "productive" real estate in Ohio; under the bill, a board may invest in any type of real estate anywhere in the United States. Also at present, no more than 12 percent of the system's funds may be invested in such property; under the bill, as much as 25 percent may be invested in it. Moreover, the board's investment in real estate may take any form, for example, joint ventures or limited partnerships. However, if unimproved real estate is acquired, it must "be subject to a development plan."
>
> The bill authorizes a board to develop real estate it owns by spending money on the demolition of existing structures; grading and landscaping; constructing new structures; modifying existing structures, fixtures, and equipment; and related personal property. It also authorizes the board to manage the property itself or to contract with a management firm with expertise in

Many states have proposed legislation to broaden their real estate investment powers.

Financing muscle, Philipsborn style.

The Philipsborn Companies are proud to announce these recently completed Equity and 1st Mortgage Financing transactions. These may be difficult times for others in the industry. But with Philipsborn as your single-source resource, we can turn financing obstacles into opportunities.

EQUITY FINANCING—HOUSTON, TEXAS
Westchase National Bank Building
200,000 Sq. Ft. Office Complex
TOTAL DEVELOPMENT COST: $18,000,000

- **EQUITY FINANCING—SAN ANTONIO, TEXAS**
  Energy Plaza
  155,000 Sq. Ft. Office Complex
  TOTAL DEVELOPMENT COST: $10,500,000
- **EQUITY FINANCING—HOUSTON, TEXAS**
  Harwin Business Center
  87,000 Sq. Ft. Warehouse
  TOTAL DEVELOPMENT COST: $3,500,000
- **1st MORTGAGE FINANCING—HOUSTON, TEXAS**
  Park Ten Crescent Business Center
  85,000 Sq. Ft. Office/Service Center
  1st MORTGAGE FINANCING: $3,000,000
- **EQUITY FINANCING—GRAND PRAIRIE, TEXAS**
  Forum Business Park
  114,000 Sq. Ft. Warehouse
  TOTAL DEVELOPMENT COST: $2,600,000
  Construction Financing: $1,750,000
  1st Mortgage Financing: $1,750,000
- **1st MORTGAGE FINANCING—HOUSTON, TEXAS**
  One Greenbriar Place
  4-Story Office Development
  1st MORTGAGE FINANCING: $11,050,000

The Philipsborn Companies

CHICAGO: 115 South LaSalle Street • Chicago, IL 60603
312-781-8800

TEXAS: 6200 Savoy • Suite 400 • Houston, TX 77036
713-977-7700

Your single-source resource.

managing similar property. Any real estate purchased or improved by the board may be leased or mortgaged, but it must be geographically dispersed and suitable, or adaptable without excessive cost, for more than one use.

Regional concentration

When asked about future commitment to regional concentration, William Amerman of Michigan gave a typical response, reporting that the systems "will opt for in-state investment where risk return criteria are equal to other opportunities. Geographic diversification will not be limited by regional boundaries. Generally, we will be interested in growth areas (SMSA's and economic stability)."

Preference to investing within the fund's own state is exemplified by the PERS/California portfolio, which has 49.7 percent of its total loans in California — representing over $1.5 billion in May, 1981. The majority of these investments are in GNMA single family and FHA-VA loans.

Social investing

"Social investing" has become a popular buzz word in the pension fund industry. Although not clearly defined, the term implies the consideration of public interest goals when making investment decisions. Some of the advisors interviewed are actively developing programs to invest in pools of home loans in their states, clearly a social investment.

An example of a new investment program in residential home loans is the recently organized North Carolina Mortgage Investment Corporation (NCMIC). According to Chris Moore of the North Carolina System, NCMIC's purpose will be to assist that state's mortgage loan industry by providing an additional outlet for the secondary sale of home mortgages. NCMIC will purchase residential mortgage loans from mortgage originators within North Carolina, package the mortgages as either a collateralized debt issue or pass-through certificates, and sell the securities in both private and public offerings to third-party investors, one of whom may be the state of North Carolina pension fund.

Investment decision-making

Three major challenges will confront pension managers who will be making real estate investment decisions.

1. *How should the fund develop investment acumen for real estate?* Most pension fund managers acquired their knowledge of investment in the securities markets. As they enter the commercial real estate world, they will have to develop additional skills. Buying a property is more like buying a business than purchasing a portfolio investment.

Some of the 10 state funds interviewed may use outside advisors to make recommendations. However, the advisors will not manage their money, i.e., the funds will not invest in the separate accounts of insurance companies. The philosophy of maintaining the fund's own fiduciary responsibility by making "prudent" decisions for each investment in real estate, as opposed to permitting an outside manager to invest large sums of money in a diversified portfolio at his sole discretion, was shared by most of the fund managers interviewed. Mel Petersen, PERS/California, described it as a legal responsibility: *Delegatus Non-Potest Delegare* — the fund cannot delegate unto others the discretionary functions and investment decision-making that have been delegated unto itself.

2. *How does one measure real estate investment performance?* There are no adequate indices or measures of performance in commerical real estate. Since property is not homogeneous, the existing inventory cannot be priced on a day-to-day basis, and it cannot be monitored by research analysts in the same way that common stocks can.

3. *How does one deal with the socio-political pressures in making real estate investment decisions?* Since public pension funds represent pools of money from state employees, an important political question evolves — How much weight should be given to furthering the social welfare of a state through investment policy or decision?

Conclusion

The investment officers of these 10 large state funds indicated that they believe public funds generally will be a major source of real estate capital in the decades ahead. Many of the states will be enacting new legislation that will substantially enable them to commit "prudently" billions of dollars to both mortgage and equity real estate investments. They are hopeful that these real estate investments will prove to be a true inflationary hedge.

These enormous sums of money can have a positive impact on the future growth and development of the real estate industry. Real estate professionals who bring investment opportunities to these growing public funds should keep in mind the cardinal rule of Michigan's William Amerman: "In order for a deal to be good for anyone, it has to be good for *all* parties." □

— NEW —

SHARED APPRECIATION MORTGAGES
IN
SELECTED RESIDENTIAL MARKETS

· HIGH-YIELD POTENTIAL · ASSET-BASED INVESTMENT
· INFLATION HEDGE

CALL/WRITE: Shared Appreciation Mortgage Co.
Xerox Centre — 55 West Monroe
Chicago, Il 60603
312/332-3302

-SAMCO-

Urban Institute's report on state and local pensions

State and local government pension plans have been subject to considerable study over the last decade. One might even say they have been overstudied. This plethora of studies stems from a number of concerns. For example, should public plans be subject to the standards of ERISA? How well are they funded?

Perhaps the most comprehensive of these studies is the *Report of the House Pension Task Force*, which was published in 1978. That study, though providing much useful information, is clearly biased toward subjecting public plans to at least some ERISA standards.

Recently, the Urban Institute issued another study of state and local government plans. Entitled *The Future of State and Local Pensions*, this 579-page report focuses primarily on the *current* status of 100 large state and local government plans. In addition, it projects the funding status of the plans as a group. The study covers much of the same ground as the House Pension Task Force report but for a smaller group of plans.

Overview

The Federal Department of Housing and Urban Development and other Federal agencies commissioned the Urban Institute report to assist Federal policymakers in their consideration of the following:

- whether state and local plans provide adequate benefits;
- whether ERISA funding standards should be applied to public plans;
- what standards, if any, should be imposed upon the investment management activities of state and local plans;
- whether all state and local employees should be required to join the Social Security system;
- what impact pension costs will have on education finance and the appropriate Federal response in education programs; and
- what impact pension costs, with and without Federal legislative action, will have on the finances of state and local governments and, thus, the ability of those governments to deal with people and places in distress.

As noted above, the report is based on a sample of 100 plans — the 35 largest state and local plans and another 65 plans drawn at random from the universe of public plans with 1,000 or more members. Thus, the findings of this report, if valid, apply only to the larger public plans.

The report focuses on four major issues concerning state and local government plans: 1) reporting and disclosure, 2) benefit levels and pension plan design, 3) investment policy, and 4) pension costs and funding.

Reporting and disclosure

Reporting and disclosure for most state and local government plans is inadequate, according to the report. To remedy this supposed deficiency, a series of recommendations is proposed.

- Each plan should report asset targets (100 percent funding target) using its assumptions and funding method, unless the funding method does not produce an explicit asset target.
- Plans should report Financial Accounting Standards Board (FASB) Statement No. 35, plan termination, and plan continuation (see below) liabilities with each actuarial valuation. In addition, the unfunded liability and related information using an entry age normal funding method should be reported.
- The key economic assumptions used to determine the unfunded liabilities should be indicated and best estimates identified. Some information on the sensitivity of the unfunded liabilities to changes in economic assumptions should be provided.
- Market values of assets at the beginning and end of plan years should be disclosed by type of assets, along with information on purchases, sales, redemptions, and yields. In order to minimize potential misuse of this information, portfolio performance should be compared with standard indices and should be compared for various periods of time (e.g., most recent year, most recent five years, most recent 10 years).

Most of the recommended disclosure seems excessive. In particular, the recommended disclosure of unfunded liability in actuarial reports goes far beyond what is necessary for enlightened comparison of plans. In fact, the report asks for considerably more than the FASB requires.

To disclose four separate unfunded liabilities, perhaps using several sets of economic and demographic assumptions, would do more to obscure the funding status of the plan than it would to clarify it. Furthermore, the extra cost and effort involved is not minimal, despite the report's claim that modern computer technology has made it very simple. In fact, the extra reporting would be costly, especially for the actuarial firms that do not

by **THOMAS J. CAVANAUGH**
Consulting Actuary
and **RICHARD C. MURPHY**
Director of Research
George B. Buck Consulting Actuaries
New York, N.Y.

Table 1 Average Pre-Retirement Disposable Income Replacement Rates for Workers Retiring at Age 65 With 30 Years' Service

Type of Plan	Final Salary $10,000	Final Salary $20,000
General Member — state administered	116%	101%
General Member — locally administered	122	111
Teacher	97	86
All Plans (100, including police and fire plans not listed above)	109	96

Source: *The Future of State and Local Pensions*, p. 1/29.

Table 2 Methods of Reflecting Inflation in Plan Provisions (1980)

Method	Number of Plans[1]
Full Indexing to CPI	2
Partial, Uncapped Indexing to CPI[2]	3
Full Indexing to Wages of Rank Last Held	1
Indexed With a Cap of:	
2% or less[3]	12
2-3%[3]	26
4-5%	8
Over 5%	1
No Provision for Inflation[4]	59
Total	112

[1]Includes 100 basic plans and 12 separate tiers.
[2]Increase equals 60 percent of the CPI increase.
[3]Includes six plans with automatic COLA tied to original benefit.
[4]Includes one state-administered plan with an option for localities to provide an automatic COLA provision. Few have exercised this option.

Source: *The Future of State and Local Pensions*, p. 2/8.

Table 3 Use of *Ad Hoc* Increases (1974-80)

	Number of Plans[1]		
	Granted Increases	No *Ad Hoc* Increases	Total
Plans With no Provision for Cost of Living	50	8	58
Plans Indexed With a Cap	22	13	35
Plans With Fully or Partially Indexed Cost-of-Living Provisions	—	6	6
New Tiers Indexed With a Cap	—	12	12
	72	39	111

[1]Based on 99 plans for which information about *ad hoc* increases was available.

Source: *The Future of State and Local Pensions*, p. 2/13.

have access to modern computer technology.

Benefit levels and plan design

In the benefit and design section, the Urban Institute study concentrates on four main areas.

Benefit adequacy. The House Pension Task Force report supported concerns about potentially excessive public plan benefits under some circumstances, at least for the employee who remains until age 65. The Urban League report appears to add weight to this conclusion — at least for the 100-plan sample. Table 1 shows, on a weighted average basis, pre-retirement disposable income replacement rates for employees retiring at age 65 with 30 years of service. (Pre-retirement disposable income is defined as gross income less taxes.) While the weighted average replacement rates as reported are high, we question the result for teacher plans. Our experience would not support this relatively low result, and the report gives no justification for it.

There is considerable variation in replacement rates among the plans studied. The rates for employees age 65 with 30 years of service and a gross income of $10,000 range from 149 to 52 percent. Also, the replacement rates, on a weighted average basis, for employees covered by Social Security are higher than the rates for those not covered by Social Security.

Replacement rates among the 100 plans are generally lower for disability retirement, though some of the plans in the study have disability provisions that in combination with Social Security provide more than 100 percent of pre-retirement disposable income for employees with 10 years of service when they become disabled.

However, according to the study, the magnitude of these replacement rates is not enough to determine the adequacy of the benefits they reflect. Instead, the report maintains that "benefit adequacy cannot be understood without looking both at benefits at the time of retirement and some years after retirement."

Impact of inflation. This leads naturally into a discussion of the impact of inflation on retirement benefits and inflation protection after retirement. The report points out that without cost-of-living increases for retirees, the purchasing power of a more than adequate benefit can drop off, especially in an inflationary environment.

The analysis in this section seems to be rather superficial. No attempt is made to discuss problems with using the Consumer Price Index (CPI) as an inflation measure or the difficulties of devising a more appropriate inflation measure for retirees. Creative new financing methods to provide inflation protection, which are in use by some employers, are not mentioned.

Tables 2 and 3, which are taken from the report, are of some interest. Not surprisingly, very few plans index benefits to the full percentage increase in the CPI, but some have at least provided capped automatic increases. Many have provided *ad hoc* increases.

Social Security. The report indicates that "integration" of retirement benefits in state and local government plans is much less common than in the private sector. Only 23 of the 100 plans are integrated in the sense that retirement benefits were essentially reduced by Social Security benefits. Lack of integration contributes to the high weighted average replacement rates in Table 1.

There has been a leveling in the number of state and local government plans pulling out of Social Security, according to the report. Nothing is mentioned about the fact that Congress is considering legislation this year that would prevent state and local governments and nonprofit organizations from pulling out of Social Security.

The report does not take a position on whether universal Social Security coverage should be mandated for state and local government employees.

Trends and issues in plan design. The study says that no single pattern characterizes plan changes in the state and local sector. More plans liberalized benefits than reduced them, but some government plans — particularly those of cities in financial trouble — have substantially reduced benefits for new employees.

One trend of particular interest is the changes in employee contribution rates, which are summarized in Table 4. This table indicates a definite increase in employee contribution rates between 1974 and 1980.

The report notes that several big systems have been integrated with Social Security and says, "We are likely to see more integration in the future as Social Security costs and benefits increase." Perhaps there will be more integration in the future to reduce plan costs. However, initial Social Security benefits are more likely to decrease in the future as Congress moves to make the Social Security system more financially sound.

Table 4 Changes in Employee Contribution Rates (1974-80)

	General	Police/Fire	Teachers	Total
100 Plan Sample Contribution Rates				
Increased	28	2	4	34
Decreased	4	0	1	5
No change	36	6	14	56
No data	2	1	4	7
Total	70[1]	9	23	102
New Tiers Rates Compared to Basic Sample				
Increased	4	0	2	6
Decreased	3	1	3	7
No change	2	2	0	4
Total	9	3	5	17
Noncontributory[2] Systems				
1974	5	0	3	8
1980	7	0	5	12

[1]Includes two plans where rates were raised for employees covered by Social Security but remained unchanged for employees not covered by Social Security. These are entered twice.
[2]Includes new tiers.
Source: *The Future of State and Local Pensions*, p. 17/18.

Table 5 Impact of Economic Assumptions on Employer Cost of Representative Plans

Assumptions		Employer Cost as a Percentage of Payroll — Type of Plan		
Interest Rate	Salary Increase	General	Police & Fire	Teacher
7%	6%	14%	26%	16%
11	7	6	14	6

Source: *The Future of State and Local pensions*, p. 6/3.

Investment policy

Two main areas are considered in this section — the desirability of investing some state and local government pension plan assets for social purposes and the investment performance of these funds as compared with other institutional investors.

Social investing. The report concludes that "legislative bodies should resist the temptation, which will increase, as plan assets increase, to direct pension funds toward investments with higher risk and/or lower return to promote social policies." Thus, the report makes a ringing denouncement of social investing.

However, the horse may already be out of the barn. Several states and cities have already moved to allow their pension plans to invest in mortgages in their local areas, in at least one case at a lower-than-market rate. Another example in point is California, which is considering major changes in the investment policy of its funds that could lead to social investing.

Investment performance. The report concludes: "During the last decade, public pension plan portfolios have performed comparably with other large institutional funds. The detailed analysis of performance records in this report shows no systematic underperformance of public plans, either in total or for different classes of assets, such as long-term bonds or stock. Public plans do operate under significantly greater investment restrictions than private plans, but these do not seem to have significantly impaired plan investment performance during the 1970's." This conclusion appears to be based on long-run historical nominal returns as opposed to real inflation-adjusted returns.

Pension costs and funding

Much of this section is a primer on funding. Very few conclusions are reached, and some of the conclusions, as noted below, seem questionable.

Advance funding. The report concludes that state and local government plans should be advance funded rather than funded on a pay-as-you-go basis.

The following points are raised in support of advance funding:

- increased benefit security for members,
- a tendency to level costs as a percentage of active payroll,
- better budgeting practices and more efficient government decision-making,
- cost smoothing over generations of taxpayers,
- lower total costs than pay-as-you-go because of asset accumulation,
- better accountability, and
- reduced costs of municipal debts.

The report says that only 10 of

the 100 plans covered in the basic sample of the study do not follow a general policy of advance funding pensions for newly hired employees. Most of these plans are in the state of Massachusetts. Some of the 10 are considering or moving toward advance funding.

Assumptions. The report quite properly notes that economic assumptions — particularly assumed interest rates and salary scales — have a substantial effect on contribution levels. However, this section makes at least three statements that are debatable.

- The report says that the actuary brings no particular expertise to the selection of economic assumptions. While other professionals and the plan sponsor can add much to the selection of these assumptions, the actuary brings a unique understanding of the long-term nature of the pension obligation and its effect on the selection of economic assumptions.
- The report notes, "Not all actuaries even make individual 'best estimate' assumptions for interest rates and salary increases, figuring (incorrectly) that errors will cancel out." No evidence is given in support of this statement. There are, in fact, good reasons for not using "best estimate" assumptions, though a consistent relationship between interest rate and salary scale must be maintained.
- Table 5 is used in the report to illustrate the impact of economic assumptions on employer pension cost for a representative plan. This comparison is misleading because the relationship between the interest rate and salary scale is not maintained.

The report says Table 5 "shows vividly that the employer's cost of typical plans can be dropped sharply by using an assumption about returns on pension fund investments of 11 percent, a rate well below returns on long-term bonds when this report was written, rather than the 7 percent that is assumed in baseline forecasts in this study even if the salary increase factor is also assumed to be higher. The employer contribution is less than half as much on this set of assumptions as it is using the baseline assumptions."

However, costs cannot, in practice, be dropped so sharply. In the first place, this comparison is misleading because the relationship between the interest rate and salary scale is not maintained. Furthermore, an 11 percent interest assumption is much too high for most plans. Those we are involved with generally are earning current total rates of return of 7 to 9 percent.

Plan continuation liability. Actuaries should routinely report plan continuation liability using "best estimate" assumptions as a test of the funded status of the plan, according to the report. The so-called plan continuation liability is poorly defined in the report. This liability is an attempt to measure an ongoing plan's obligations using the projected unit credit funding method with salary proration. In our view, there is no compelling reason to report this liability.

Cost-of-living increases. The report expresses concern over the fact that *ad hoc* and automatic cost-of-living pension increases for retirees are not normally advance funded in the public sector. Only 22 of the 53 plans that provided completely or partially automatic COL increases reflected the costs in their actuarially determined contribution to the pension plan, according to the study. The report warns, "A jurisdiction which grants cost-of-living increases without advance funding will be building a legacy of future cost increase to pay for these benefits."

While it is true that there is no legal obligation to continue granting *ad hoc* increases, once a pattern has been established of granting them each year, they are looked at by retired participants as guarantees. At that point, it is difficult to discontinue them. Therefore, all cost-of-living increases should be advance funded if possible.

Projections. A number of projections, to the year 2024, are made of the funding status of the plans in the sample. Forty-four years is a long projection period. The conclusions must be taken with a grain of salt.

In particular, the report's major finding based on the projections is open to question. The report concludes, "For the majority of public plans, advance funding will make it possible to trim pension contributions as a percent of payroll, if benefit levels are held constant and if only the COLA's required by plan provisions are granted. Under our hypothesized economic environment (a long-term inflation rate of 5 percent, investment returns of 7 percent, and salary increases of 6 percent) the employer costs of state and local pensions would drop substantially from 12.7 percent of payroll currently to 8.6 percent of payroll in 2024. To a significant degree this drop results from the liquidation of unfunded liabilities by those jurisdictions that are currently on a schedule for amortizing such liabilities."

A drop in the contribution-to-payroll ratio of this magnitude is highly improbable, however, since reductions in this ratio would generate pressures to increase benefits or grant cost-of-living increases.

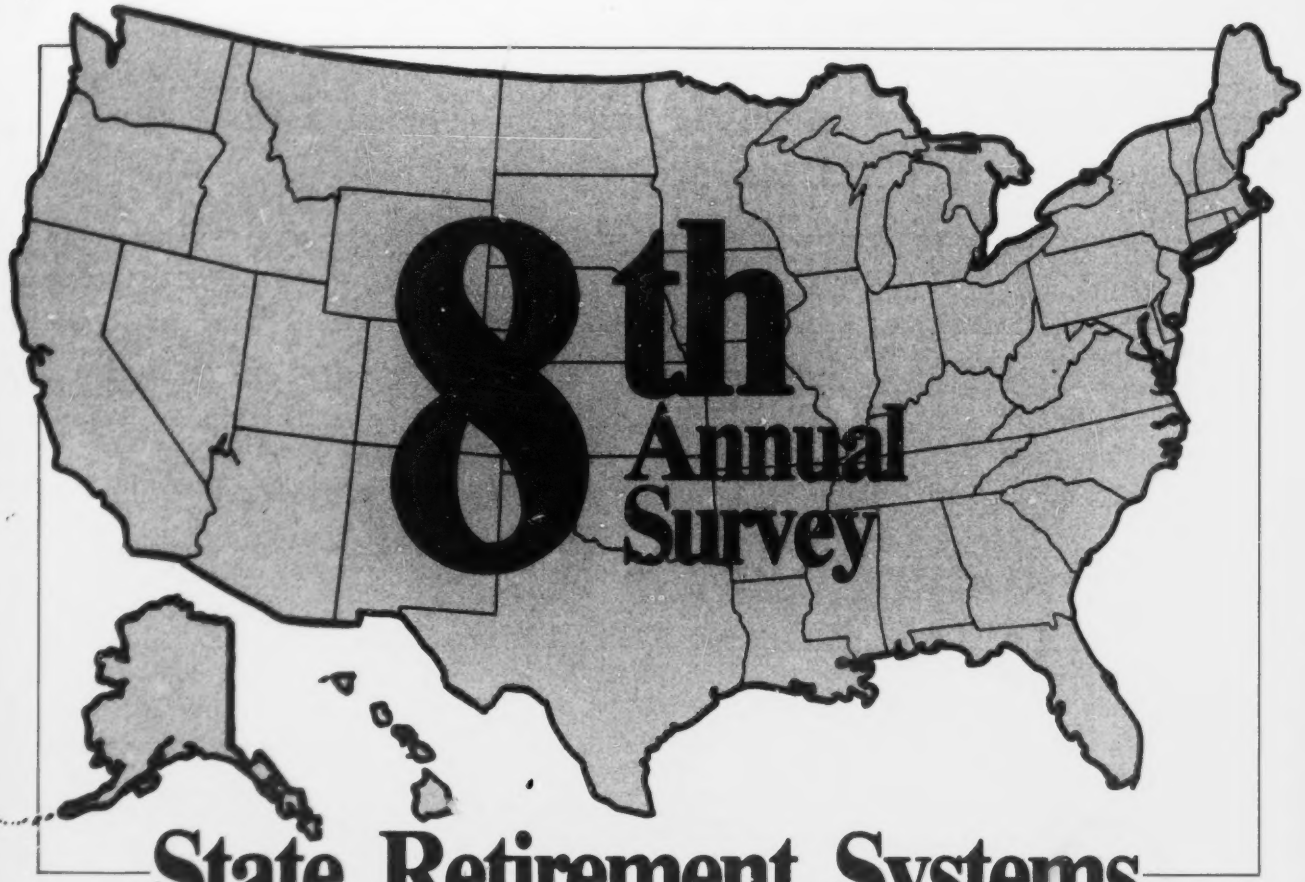
Cities. The report concludes with some instructive case studies on the impact of pension costs on certain U.S. cities — New York, Chicago, Los Angeles, Philadelphia, Detroit, Baltimore, Houston, and Dallas. The one city whose pension plan apparently is in good financial shape maintained a strong actuarial reserve funding posture up to the time of this report.

The report notes that several large cities appear to have identified and reacted to the financial problems of their pension plans. Most have either adopted or are currently discussing the creation of new pension funds with reduced benefit levels for newly hired employees. These changes could stabilize these cities' pension costs.

The voluminous information in *The Future of State and Local Pensions* updates material presented in the House Pension Task Force report. However, the results of the study are not applicable to plans with fewer than 1,000 lives.

The report contains a number of errors and questionable, unsupported statements. It makes several recommendations but often fails to subject these recommendations to a cost-benefit analysis. Its burdensome reporting and disclosure recommendations are a case in point.

State and local government officials should proceed cautiously before using any of the material contained in this report as justification or support for planned courses of action. This cautionary note should also be taken to heart by those who would use the report to justify further regulation of state and local government pension plans. □



State Retirement Systems

■ Forty-nine states and 90 public retirement systems are included in *Pension World*'s 1981 State Retirement Survey. The data that follow were compiled from responses to *Pension World*'s questionnaire, which was mailed during July, 1981, to the administrators or directors of investment of 93 state systems. Answers received represent a 96.8 percent response rate. All of the systems listed here were also included in the 1980 survey with the exception of the Illinois Municipal Retirement Fund, the Oklahoma Public Employees Retirement System, and the State Teachers Retirement System of Vermont, which are new to the universe this year. The following statistics refer to the 87 systems included in both 1980 and 1981.

Last year's data indicated that 26 percent of the state retirement systems reporting had added for the first time or significantly increased their use of external advisors. This year, however, that percentage dropped to 12.6 — five funds added non-discretionary advisors, two retained managers with full investment authority, two added discretionary managers on the equity side only, and two increased their present advisors' authority from non-discretionary to discretionary. Two other funds moved their investment management in-house.

Again this year, a number of states have shown impressive gains in size. With holdings of each state's funds combined, only five states showed increases of less than 10 percent, on a dollar for dollar basis. Sixteen states increased 10 to 19 percent; 15 increased 20 to 29 percent; and 14 states — Connecticut, Delaware, Idaho, Kansas, Michigan, Mississippi, Montana, Nebraska, New Jersey, North Dakota, Oklahoma, South Carolina, South Dakota, and West Virginia — increased their holdings 30 percent or more over the past year.

Several points should be noted for accurate interpretation of the following survey.

- All figures are at cost, unless otherwise noted, and are based on completed responses to the *Pension World* questionnaire.
- Where breakdowns were provided by the state systems, government-insured mortgages have been included in the "Mortgage" category and noted as such.
- Investments in the "Other" category, where itemized by individual systems, include: Canadians (11 funds), CD's (seven), government-guaranteed loans (five), GIC's (five), convertibles (four), foreign securities (four), receivables (three), commercial paper (three), bank notes (two), gold bullion (two), private placements (two), index fund (one), utilities (one), real property (one), and venture capital (one).

Name and address of fund	Contact person	Total assets (in millions $)	Common stock (in millions $)	Preferred stock (in millions $)	U.S. gov't securities (in millions $)
The Retirement Systems of Alabama 135 South Union Street Montgomery, AL 36130 205/832-4140	David G. Bronner Secretary-Treasurer	2,600 (bk.)	109.2 (bk.)		
Alaska Public Employees Retirement System Pouch SB Juneau, AK 99811 907/465-2350	Peter A. Bushre Deputy Commissioner	504	46		150
Alaska Teachers Retirement System Pouch SB Juneau, AK 99811 907/465-2350	Peter A. Bushre Deputy Commissioner	379.1	51.1		106.8
Arizona Public Safety Personnel Retirement System Suite 411 3033 North Central Avenue Phoenix, AZ 85012 602/274-3003	Lowell Sutton Administrator	381.7	76.6		64.1
Arizona State Retirement System P.O. Box 33910 Phoenix, AZ 85067 602/255-5131	Max Sullivan Director	2,002.1	688.4	3.2	401.4
Arkansas Public Employees Retirement System One State Capitol Mall Little Rock, AR 72201 501/371-3679	Fred E. Henne Executive Director	418	42.9		117.1
Arkansas State Highway Employees Retirement System P.O. Box 2261 Little Rock, AR 72203 501/569-2411	J. E. McCarthy Executive Secretary	81.4	9.6		20.9
Arkansas State Police Retirement System One State Capitol Mall Little Rock, AR 72201 501/371-3679	Fred E. Henne Executive Secretary	23	1.5		3.3
Arkansas Teacher Retirement System Educational Building West Capital Grounds Little Rock, AR 72201 501/371-1517	Mavolene C. Booth Assistant Director for Investments	547 (bk.)	105 (bk.)		115 (bk.)
California Legislators Retirement System 1416 Ninth Street Sacramento, CA 95814 916/445-7700	Melvin W. Petersen Chief of Investments	37.1 (bk.)	8.3 (bk.)	.4 (bk.)	.3 (bk.)
California Public Employees Retirement System 1416 Ninth Street Sacramento, CA 95814 916/445-7700	Melvin W. Petersen Chief of Investments	14,840.1 (bk.)	3,403.8 (bk.)	23.5 (bk.)	1,502.2 (bk.)
California State Teachers Retirement System 1416 Ninth Street Sacramento, CA 95814 916/445-7700	Melvin W. Petersen Chief of Investments	8,292.8 (bk.)	1,490.3 (bk.)	10.3 (bk.)	991.1 (bk. — includes int'l institutions)
Public Employees Retirement System of Colorado 1300 Logan Street Denver, CO 80203 303/832-9550	Joseph P. Natale Executive Secretary	2,388	518.8		267.2
Connecticut State Retirement Systems 20 Trinity Street Hartford, CT 06115 203/566-2166	Lee Van Meter Deputy Treasurer of Investments	1,709 (mkt.)	666.5 (mkt.)		119.5 (mkt.)
Delaware State Employees Retirement Fund Office of Pensions Thomas Collins Building P.O. Box 1401 Dover, DE 19901 302/736-4208	Donald McArdle Administrator	381.7 (mkt.)	177.5 (mkt.)		15.5 (mkt.)

Corporate bonds (in millions $)	Mortgages (in millions $)	Other real estate (in millions $)	Cash and short-term securities (in millions $)	Other (in millions $)	Reporting date	Investment advisors
977.6 (bk.)	624 (bk.)		169 (bk.)	715 (bk.)	6/30/81	Internal administration, First National Bank of Birmingham (non-discretionary)
35	156	21	71	25	5/31/81	Morgan Guaranty Trust Co., Alliance Capital Management Corp.
28.7	125.3	21.3	14.0	21.0	5/31/81	Morgan Guaranty Trust Co., Alliance Capital Management Corp.
178.5			50.7		6/30/81	Internal administration
548.4	148.9	1.8	230.0		6/30/81	Alliance Capital Management Corp., Invesco Capital Management, Kemper Financial Services, Bernstein-Macaulay, Valley National Bank of Arizona, Fiduciary Trust Co. of New York
206.1	42.1 (GNMA's)		9.8		6/30/81	Loomis, Sayles & Co.
46.9			.5	3.5	6/30/81	Loomis, Sayles & Co.
14.7	2.4 (GNMA's)		1.1		6/30/81	Loomis, Sayles & Co.
228 (bk.)	44 (bk.)		52 (bk.)		5/30/81	Oppenheimer Capital Corp.
10.4 (bk.)	16.4 (bk.)		1.3 (bk.)		6/30/81	Internal administration
6,357.7 (bk.)	3,301.9 (bk.)	5.1 (bk.)	245.9 (bk.)		6/30/81	Internal administration, Citicorp Investment Management
3,650.8 (bk.)	1,956.7 (bk.)		193.6 (bk.)		6/30/81	Internal administration; Scudder, Stevens & Clark
1,612.5	280.3	17.0	91.6	88.8	12/31/80	Bankers Trust Co., Provident National Bank
581.1 (mkt.)	213.6 (mkt.)			51.3 (mkt.)	6/30/81	Equity: David L. Babson & Co., Connecticut Bank & Trust, Bernstein-Macaulay, Capital Guardian Trust Co.; Fixed income; internal administration, Harris Trust, Scudder, Stevens & Clark
51.5 (mkt.)		38.2 (mkt.)	68.0 (mkt.)	43.5 (mkt.)	6/30/81	T. Rowe Price Associates; Fayez Sarofim & Co., Putnam Advisory Co.; Atlanta Capital Management Co.; Harris, Bretall & McEldowney; Lincoln Capital Management Co.; Provident Investment Counsel; Forstmann-Leff Associates; Eagle Management & Trust Co.; Wells Fargo Investment Advisors; Aetna Life & Casualty Co.; John Hancock Mutual Life Insurance Co.; The Travelers Insurance Co.; Citibank, N.A.

Name and address of fund	Contact person	Total assets (in millions $)	Common stock (in millions $)	Preferred stock (in millions $)	U.S. gov't securities (in millions $)
Florida Retirement System Trust Fund Room 530 Carlton Building Tallahassee, FL 32304 904/488-5541	A. J. McMullian Director	4,475	483		893
Georgia Employees Retirement System Two Northside/75 Atlanta, GA 30381 404/656-2151	Graham R. Lynch Director of Investments	683 (mkt.)	238 (mkt.)		128 (mkt.)
Georgia Teachers Retirement System Two Northside/75 Atlanta, GA 30381 404/656-2151	Graham R. Lynch Director of Investments	1,775 (mkt.)	649 (mkt.)		279 (mkt.)
Hawaii Employees Retirement System 888 Mililani Street, Suite 502 Honolulu, HI 96813 808/548-7593	Stanley Siu Secretary	1,257.5 (bk.)	156.8 (bk.)	16.5 (bk.)	268.0 (bk.)
Public Employee Retirement System of Idaho Statehouse Boise, ID 83704	T. F. Terrell Executive Director	406.1 (bk.)	171.8 (bk.)	9.2 (bk.)	30 (bk.)
Illinois Municipal Retirement Fund Public Employee Pension Fund Division Department of Insurance Springfield, IL 62767 217/782-3824	Dwight O. Anderson Assistant Deputy Director	1,198	210.7 (bk.)		391.2 (bk.)
Illinois State Board of Investments: General Assembly Fund, Judges Retirement Fund, State Employees Retirement System Fund 180 North LaSalle Chicago, IL 60601 312/793-5718	Robert Harmon Director	1,012.5 (mkt.)	323.0 (mkt.)		227.8 (mkt.)
Illinois State Universities Retirement System 50 Gerty Drive Champaign, IL 61820 217/333-3860	Charles M. Hundley Associate Director	1,082 (bk.)	364 (bk.)		128 (bk.)
Teachers Retirement System of the State of Illinois 2815 West Washington Street Springfield, IL 62708 217/753-0315	Samuel W. Anderson Acting Director	2,782 (bk.)	695 (bk.)		433 (bk.)
Indiana Judges Retirement System 143 West Market Street Indianapolis, IN 46204 317/232-1619	C. Philip Barnes Manager/Investment Department	6			6
Indiana Public Employees Retirement Fund Suite 110, Harrison Building 143 West Market Street Indianapolis, IN 46204 317/232-1619	C. Philip Barnes Manager/Investment Department	714.4			278.9
Indiana State Police Pension Fund 242 State House Indianapolis, IN 46204 317/232-6386	W. A. Owen Investment Advisor	47.2			.3
Indiana State Teachers Retirement Fund 506 State Office Building 100 North Senate Indianapolis, IN 46204 317/232-3860	Edmond G. Niehoff Assistant Executive Secretary	529			254.5
Iowa Peace Officers Retirement System State Capitol Building Des Moines, IA 50319 515/281-5369	Roger G. Barnett Deputy Treasurer	23	3		9
Iowa Public Employees Retirement System 1000 East Grand Avenue Des Moines, IA 50319 515/281-8212	Edward R. Longnecker Director	1,504.4	155.4 (combined)		216.3 (par)

Corporate bonds (in millions $)	Mortgages (in millions $)	Other real estate (in millions $)	Cash and short-term securities (in millions $)	Other (in millions $)	Reporting date	Investment advisors
2,660			439		6/30/81	Internal administration
260 (mkt.)	19 (bk.)	3 (mkt.)	35		6/30/81	First National Bank of Atlanta
744 (mkt.)	33 (bk.)	18 (mkt.)	52 (bk.)		6/30/81	C & S National Bank of Atlanta
235.7 (bk.)	372.0 (bk.)		199.8 (bk.)	8.7 (bk.)	6/30/80	Bernstein-Macaulay; Delaware Investment Advisers; Eagle Management & Trust Co.; Fayez Sarofim & Co.; Lehman Management Co.; Loomis, Sayles & Co.; Pacific Investment Management Co.; Scudder, Stevens & Clark; Security Pacific Investment Managers; Wentworth, Hauser and Violich
90.9 (bk.)	16.5 (bk.)	37.9 (bk.)	42.3 (bk.)	7.4 (bk.)	7/21/81	Alliance Capital Management Corp.; Bank of Idaho, N.A.; Equitable Life Assurance Society of the U.S.; First Security Bank of Idaho; Idaho Bank and Trust Co.; Idaho First National Bank; Prudential Insurance Co. of America; Trident Investment Management
432.8 (bk.)			67.7	91.7	12/31/79	Internal administration
265.3 (mkt.)			175.2 (mkt.)	21.3 (mkt.)	6/30/81	Internal administration
459 (bk.)			100	20 (bk.)	5/31/81	Harris Trust
1,516 (bk.)	18 (bk.)		55 (bk.)	65 (bk.)	3/31/81	Springfield Marine Bank
					5/31/81	Internal administration
349.5			86.0		6/30/81	American Fletcher National Bank, Indiana National Bank, Merchants National Bank (custodian)
				46.9	6/30/81	Internal administration
105.8	100.5 (GNMA's & Freddie Macs)	5.3	52.9		6/30/81	Alliance Capital Management Corp., Bank of New York, American Fletcher National Bank, Indiana National Bank
9.4			1.6		6/30/81	Loomis, Sayles & Co.
796.8 (par)			78.6 (par)	241.8 (par)	6/30/81	The Boston Co., Alliance Capital Management Corp., Capital Guardian Trust Co.

Name and address of fund	Contact person	Total assets (in millions $)	Common stock (in millions $)	Preferred stock (in millions $)	U.S. gov't securities (in millions $)
Kansas Public Employees Retirement Fund 400 First National Bank Tower One Townsite Plaza Topeka, KS 66603 913/296-5257	Ronald J. Bleidissel Chief Accountant	1,038.8	354.8	3.4	149.3
Kentucky Retirement Systems 226 West Second Street Frankfort KY 40601 502/564-7987	Bobby J. McKee Operations Manager	791.8 (bk.)	206.7 (bk.)		268.4 (bk.)
Kentucky Teachers Retirement System 216 West Main Street Frankfort, KY 40601 502/564-2057	Stuart Reagan Investment Officer	1,034.0	140.3		447.9
Municipal Employees Retirement System of Louisiana 6750 Van Gogh Avenue Baton Rouge, LA 70806 504/925-4812	Janie S. Byrd Administrative Director	53			35.3
Louisiana School Employees Retirement System P.O. Box 44516 Baton Rouge, LA 70804 504/925-6484	Julia Bickham Accountant	194	4	1	47
Louisiana School Lunch Employees Retirement System Building C, Second Floor 9131 Interline Avenue Baton Rouge, LA 70809	Shirlyn Kees Assistant Secretary-Treasurer	44.7	.01	.05	19.3
Louisiana State Employees Retirement System P.O. Box 44213 Baton Rouge, LA 70804 504/342-5098	Vernon L. Strickland Director	808	43	32	358
Louisiana State Police Retirement Fund P.O. Box 66614 Baton Rouge, LA 70896 504/925-4878	Richard J. Maciasz Manager	11.9			3.8
Teachers Retirement System of Louisiana P.O. Box 44123 Capitol Station Baton Rouge, LA 70804 504/925-6446	Jennifer Netterville Investment Portfolio Specialist	1,408 (par)	28.2 (par)		422.4 (par)
Maine State Retirement System State Office Building Augusta, ME 04333 207/289-3461	William G. Blodgett Executive Director	384.2 (bk.)	170.1 (bk.)		68.9 (bk.)
Maryland State Retirement Systems 301 West Preston Street Baltimore, MD 21201 301/383-3798	Howard J. France Investment Administrator	2,683.0	919.7		536.0
Commonwealth of Massachusetts State Employees Annuity Fund State Treasurers Office Room 1203 1 Ashburton Place Boston, MA 02108 617/727-2010	Philip D. Kett Chief Investment Officer	834.4 (bk.)	66 (bk.) 91.2 (mkt.)		13.4 (bk.)
Commonwealth of Massachusetts State Teachers Annuity Fund State Treasurers Office Room 1203 1 Ashburton Place Boston, MA 02108 617/727-2010	Philip D. Kett Chief Investment Officer	983.1 (bk.)	66.7 (bk.) 93.6 (mkt.)		19.4 (bk.)
Michigan Judges Retirement System P.O. Box 15128 Lansing, MI 48901 517/373-3140	W. A. Amerman Director of Investments	32.6 (bk.)	4.0 (bk.)	.2 (bk.)	10.2 (bk.)
Michigan Legislative Retirement Fund P.O. Box 30036 Lansing, MI 48909 517/373-0575	Thomas G. Baker Administrator	22	.2		2.9

Corporate bonds (in millions $)	Mortgages (in millions $)	Other real estate (in millions $)	Cash and short-term securities (in millions $)	Other (in millions $)	Reporting date	Investment advisors
212.3			314.2	4.6	6/30/81	Reimer & Koger Associates, Montag & Caldwell, Oppenheimer Capital Corp., Capital Supervisors, Fourth National Bank & Trust Co., Investment & Capital Management Corp.
145.6 (bk.)	64.5 (bk.)		106.7 (bk.)		6/30/81	Capital Supervisors, Inc.
248.2	89.0		107.7		6/30/81	Todd Investment Advisors, Alliance Capital Management Corp., internal administration
14.1			3.8	.2	7/31/81	Internal administration
115			25	2	6/30/79	Hibernia National Bank in New Orleans
16.3	.7		7.1	1.3	6/30/81	Hibernia National Bank in New Orleans
203	31	1	72	68	9/30/80	Putnam Capital Management, Hibernia National Bank in New Orleans
3.6			3.4	1.2	3/31/81	Louisiana National Bank
760.3 (par)			197.1 (par)		6/30/81	Scudder, Stevens & Clark, Massachusetts Financial Services Co., Hibernia National Bank in New Orleans
45.5 (bk.)	5.4 (bk.)		50.4 (bk.)	43.9 (bk.)	6/30/81	Alliance Capital Management Corp., David L. Babson & Co., Massachusetts Financial Services Co., Merchants National Bank of Bangor, Merrill Trust Co., Morgan Guaranty Trust Co., Putnam Advisory Co., The Travelers Insurance Co.
834.0	57.6		335.7		7/9/81	Internal administration
741.5 (bk.)	264 (bk. — GNMA's)	9 (bk.)	27 (bk.)		6/30/81	Internal administration
881 (bk.)	338 (bk. — GNMA's)	10 (bk.)	24 (bk.)		6/30/81	Internal administration
13.3 (bk.)	.1 (bk.)		4.3 (bk.)	.5 (bk.)	5/31/81	Internal administration
11.8	2.0		6.7		6/30/81	Internal administration

Name and address of fund	Contact person	Total assets (in millions $)	Common stock (in millions $)	Preferred stock (in millions $)	U.S. gov't securities (in millions $)
Michigan Municipal Employees Retirement System Stevens T. Mason Building Lansing, MI 48909 517/373-9317	John W. Fonger Manager	434.6	66.3		253.2 (combined)
Michigan Probate Judges Retirement System P.O. Box 15128 Lansing, MI 48901 517/373-3140	W. A. Amerman Director of Investments	7.2 (bk.)	1.2 (bk.)		1.4 (bk.)
Michigan Public School Employees Chapter I Retirement System P.O. Box 15128 Lansing, MI 48901 517/373-3140	W. A. Amerman Director of Investments	3,868.2 (bk.)	497.2 (bk.)	3.0 (bk.)	682.2 (bk.)
Michigan Public School Employees Chapter II Retirement System P.O. Box 15128 Lansing, MI 48901 517/373-3140	W. A. Amerman Director of Investments	526.5 (bk.)	78.6 (bk.)	2.3 (bk.)	41.8 (bk.,
Michigan State Employees Retirement System P.O. Box 15128 Lansing, MI 48901 517/373-3140	W. A. Amerman Director of Investments	1,282.2 (bk.)	172.0 (bk.)	1.0 (bk.)	205.2 (bk.)
Michigan State Police Pension, Accident & Disability Fund P.O. Box 15128 Lansing, MI 48901 517/373-3140	W. A. Amerman Director of Investments	119.5 (bk.)	12.3 (bk.)		30.4 (bk.)
Minnesota State Investment Board 55 Sherburne Avenue St. Paul, MN 55104 612/296-3328	Jon White Executive Director	3,533.1	1,163.7		273.7
Mississippi Highway Safety Patrol Retirement System 1704 Sillers Building Jackson, MS 39201 601/354-6191	James Mayfield Investment Manager	33.8 (bk.)	2.7 (bk.)		4 (bk.)
Mississippi Public Employees Retirement System 1704 Sillers Building Jackson, MS 39201 601/354-6191	James Mayfield Investment Manager	1,167 (bk.)	85		169 (bk.)
Missouri State Highway Employees and Highway Patrol Retirement System P.O. Box 270 Jefferson City, MO 65101 314/751-3704	Mari Ann Winters Secretary	91.4 92.7 (mkt.)	28.1 35.6 (mkt.)	1.3 1.4 (mkt.)	22.5 17.8 (mkt.)
Public School Retirement System of Missouri P.O. Box 268 Jefferson City, MO 65102 314/425-7742	Alfred Graves Senior Vice President	1,214 (mkt.)	192.7 (mkt.)		
Montana State Board of Investments: Public Employees Retirement Fund, Teachers Retirement System Fund Capitol Station Helena, MT 59620 406/449-2656	Robert T. Bugni Securities Analyst	1,156 (bk.)	49.4 (bk.)		231.5 (bk.)
State of Nebraska Retirement Fund State Office Building Box 94696 Lincoln, NE 68509 402/471-2043	Donald J. Mathes State Investment Officer	268	14		254 (combined)
Nevada Public Employees Retirement System 693 West Nye Lane Carson City, NV 89701 701/885-4206	Linda Jean Lofgren Investment Analyst	847.4	89.0	5.2	
New Jersey Division of Investment 349 West State Street Trenton, NJ 08625 609/292-5106	Roland M. Machold Director	8,285 (bk.)	1,171 (bk.)	11 (bk.)	2,002 (bk.)

Corporate bonds (in millions $)	Mortgages (in millions $)	Other real estate (in millions $)	Cash and short-term securities (in millions $)	Other (in millions $)	Reporting date	Investment advisors
253.2 (combined)	5.0		69.0	41.2	6/30/81	American General Capital Advisors, Capital Supervisors Corp., Boston Co., Investment & Capital Management Corp.
3.4 (bk.)			1.1 (bk.)	.1 (bk.)	5/31/81	Internal administration
1,553.7 (bk.)	602.3 (bk.)	9.9 (bk.)	429.8 (bk.)	88.1 (bk.)	5/31/81	Internal administration
218.5 (bk.)	107.9 (bk.)		66.9 (bk.)	10.5 (bk.)	5/31/81	Internal administration
500.7 (bk.)	252.5 (bk.)		125.1 (bk.)	25.7 (bk.)	5/31/81	Internal administration
52.7 (bk.)	3.5 (bk.)		18.6 (bk.)	2.0 (bk.)	5/31/81	Internal administration
1,082.6	211.5 (GNMA's)		629.9	171.7	6/30/81	Internal administration
19.1 (bk.)	6 (bk. — GNMA's)		1	1.1	6/30/81	Fixed income: Lionel D. Edie & Co.; Equity: Alliance Capital Management Corp.; Fayez Sarofim & Co.; Scudder, Stevens & Clark
447 (bk.)	283 (bk.)		31.6	149	6/30/81	Fixed income: Lionel D. Edie & Co.; Equity: Alliance Capital Management Corp.; Fayez Sarofim & Co.; Scudder, Stevens & Clark
6.5 4.1 (mkt.)	0.2 0.2 (mkt.)		16.2 16.2 (mkt.)	16.6 17.4 (mkt.)	5/31/81	United Missouri Bank of Kansas City, N.A.
671 (mkt.)	287.3 (mkt.)		62.8 (mkt.)		12/31/80	The Boatman's National Bank of St. Louis
649.6 (bk.)	76.7 (bk.)		97.2 (bk.)	51.9 (bk.)	6/30/81	Internal administration; Scudder, Stevens & Clark (non-discretionary)
254 (combined)					6/30/81	Internal administration, Bankers Life Insurance Co. of Nebraska, The Travelers Insurance Co.
559.4	141.1	10.1	41.7	.8	5/31/81	Stocks and bonds: Funds Advisory Co.; Mortgages and real estate: internal administration
3,121 (bk.)	714 (bk.)	6 (bk.)	1,260 (bk.)		6/30/80	Internal administration

Name and address of fund	Contact person	Total assets (in millions $)	Common stock (in millions $)	Preferred stock (in millions $)	U.S. gov't securities (in millions $)
New Mexico Educational Retirement Board P.O. Box 1029 Santa Fe, NM 87503 505/827-2818	Frank Ready Director	508	46		219
Public Employees Retirement Association of New Mexico P.O. Box 2123 Santa Fe, NM 87501 505/827-2529/2579	Leonard T. Valdes Executive Secretary Ralph Miller Investment Officer	425.4	108.4		110.0
New York State Common Retirement Fund Governor A. E. Smith State Office Building Albany, NY 12236 518/474-6398	Madelon Talley Director/Division of Investment & Cash Management William Hay Chief Investment Officer	14,695.6 (bk.)	3,490.4 (bk.)		5,362.8 (bk.)
New York State Teachers Retirement System 143 Washington Avenue Albany, NY 12210 518/447-2911	Donald L. Blaha Manager of Field Services & Publications	8,680	2,858		1,573
North Carolina Retirement Systems 325 North Salisbury Street Raleigh, NC 27611 919/733-7273	Christopher S. Moore Deputy Treasurer and Director/Investment and Banking Division	4,687 (bk.)	596 (bk.)		58 (bk.)
North Dakota Public Employees Retirement System P.O. Box 1214 Bismarck, ND 58502 701/224-2975	Dave Klemmer Deputy Director	70.0	29.6		22.1
Police and Firemen's Disability and Pension Board of Ohio 230 East Town Street Columbus, OH 43215 614/228-4076	Richard F. Thompson Investment Manager	937	150		136
Public Employees Retirement System of Ohio 277 East Town Street Columbus, OH 43215 614/466-7320	Robert A. McLaughlin Investment Officer	5,700 (mkt.)	1,400 (mkt.)		470 (mkt.)
School Employees Retirement System of Ohio 45 North Fourth Street Columbus, OH 43215 614/221-7012	R. Jack Cooper Investment Officer	1,003	193		94
The State Teachers Retirement Board of Ohio 275 East Broad Street Columbus, OH 43215 614/227-4006	Stephen A. Mitchell Director of Investments	5,590.4 (bk.)	1,502.5 (bk.)	18.8 (bk.)	901.7 (bk.)
Oklahoma Public Employees Retirement System Box 53007 Oklahoma City, OK 73152 405/521-2731	J. O. Spiller Director	350	82		68.2
Teachers Retirement System of Oklahoma P.O. Box 53524 Oklahoma City, OK 73152 405/521-2387	Jo Witt Investment Officer	600 (bk.)	110 (bk.)		158 (bk.)
Oregon Public Employee Retirement System: Public Employee Retirement Fund, Judges Retirement Fund 1099 S.W. Columbia Street Box 73 Portland, OR 97207 503/229-6977	Pat Durward Chief Accountant	2,317.1	1,120.7 (mkt.)		186.5
Pennsylvania Municipal Retirement Fund Box 1165 Harrisburg, PA 17108 717/787-2065	Robert C. Rossman Secretary	60	9		12
Pennsylvania Public School Employees Retirement System Box 125 Harrisburg, PA 17108 717/783-9412	R. J. McElroy Director Bureau of Fiscal Control	4,603.1 (bk.)	822.7	5.1 (bk.)	205.5 (bk.)

Corporate bonds (In millions $)	Mortgages (in millions $)	Other real estate (in millions $)	Cash and short-term securities (in millions $)	Other (in millions $)	Reporting date	Investment advisors
236	(included in U.S. gov'ts)		7		6/30/81	Vaughan, Nelson & Hargrove
137.5	10.1	3.9	54.5	1.1	6/30/81	Fiduciary Trust Co. of New York
2,380.8 (bk.)	2,047.1 (bk.)		1,434.5 (bk.)		6/30/81	Internal administration, Alliance Capital Management Corp., Bank of N.Y., Chemical Bank, Lazard Freres & Co., Morgan Guaranty Trust, Oppenheimer Capital Corp., L. F. Rothschild Asset Mgmt., J & W Seligman, U.S. Trust Co.
2,368	1,188	19	413	261	6/30/81	Internal administration, Lionel D. Edie & Co. (non-discretionary)
4,011 (bk.)	(included in corporate bonds)		2		12/31/80	Equity: internal administration; Alliance Capital Management Corp. (non-discretionary); Thorndike, Doran, Paine & Lewis (non-discretionary); Fixed income: internal administration; Duff & Phelps (non-discretionary)
4.4	8.7		5.3		6/30/81	Wall, Patterson, McGrew & Hamilton; Bank of North Dakota
223			118	310	5/31/81	Fixed income: internal administration; Equity: Bank of New York, Value Line Asset Management
3,200 (mkt.)	32 (mkt.)		600 (mkt.)		6/30/81	Fixed income: internal administration; Equity: Value Line Asset Management
370	252	23	69		6/19/81	Common stock: Bankers Trust Co.; Other: internal administration
1,201.0 (bk.)	1,024.9 (bk.)	254.7 (bk.)	685.0 (bk.)	1.8 (bk.)	6/30/81	Internal administration
192.2			7		6/30/81	First National Bank and Trust of Oklahoma City
357 (bk.)			25 (bk.)		6/30/81	First National Bank and Trust of Oklahoma City
634.8	311.3	.5	43.2	20.0	12/31/81	Fixed income: internal administration; Equity: David L. Babson & Co., Batterymarch Financial Management Corp., BEA Associates, George D. Bjurman & Associates, Columbia Management Co., Harris Associates, Quest Advisory Corp., Rosenberg Capital Management, Fayez Sarofim & Co., William D. Witter, Inc.
24			15		6/30/81	Fidelity Bank
2,175.2 (bk.)	846.1 (bk.)	44.3 (bk.)	504.2 (bk.)		5/31/81	Stocks and bonds: Mellon Bank; Mortgages: Fidelity Bank

Name and address of fund	Contact person	Total assets (in millions $)	Common stock (in millions $)	Preferred stock (in millions $)	U.S. gov't securities (in millions $)
Pennsylvania State Employees Retirement Fund Room 204 Labor and Industry Building Harrisburg, PA 17120 717/787-5759	Frances M. Crimbly Assistant Secretary	3,137	847	4	236
Employees Retirement System of the State of Rhode Island 198 Dyer Street Providence, RI 02903 401/277-2203	Joseph G. Iannelli Director	400.9	93.5	.1	106.3
South Carolina Retirement System P.O. Box 11778 Columbia, SC 29211 803/758-7695	Grady L. Patterson, Jr. State Treasurer	2,240.5			38.3 (par)
South Dakota Retirement System 216 East Capitol Pierre, SD 57501 605/773-3731	Al A. Asher Administrator	284.8	103.4		144
Tennessee Consolidated Retirement System 1211 Andrew Jackson Building Nashville, TN 37219 615/741-2643	H. Swift Lipscomb Chief Investment Officer	1,800 (mkt.)	578 (mkt.)		413
Employees Retirement System of Texas P.O. Box 13207 Capitol Station Austin, TX 78711 512/476-6431	John B. Randolph Director of Investments	1,631 (bk.)	227 (bk.)		458
Teacher Retirement System of Texas 1001 Trinity Street Austin, TX 78701 512/477-9711/9701	Bruce Hineman Executive Secretary Clark Manning Investment Officer	6,076 (bk.)	1,731 (bk.)		2,496 (bk. — includes $1,500 mortgage-backed)
Utah State Retirement Fund 540 East Second South Salt Lake City, UT 84102 801/355-3884	Reed E. Gundersen Investment Officer	1,063	254		247
Vermont State Retirement Fund State Administration Building Montpelier, VT 05602 802/828-2305	Edwin C. Gallison Director of Retirement Services	112 (mkt.)	40 (mkt.)	.9 (mkt.)	8 (mkt.)
State Teachers Retirement System of Vermont State Administration Building Montpelier, VT 05602 802/828-2305	Edwin C. Gallison Director of Retirement Services	140 (mkt.)	40.2 (mkt.)		24 (mkt.)
Virginia Supplemental Retirement System P.O. Box 6-C Richmond, VA 23214 802/828-2305	Robert H. Daniel Investment Officer	1,995	740.7		468.1
Washington State Board of Investments: Employees Retirement Fund, Teachers Retirement Fund, Law Enforcement Officers and Firefighters Fund, Judicial Retirement Fund 314 Insurance Building, AQ-34 Olympia, WA 98504 206/753-6810	John Hitchman Executive Secretary Finance Committee	3,518.1 (bk.)	753.3 (bk.)		553.0 (bk.)
West Virginia Public Employees Retirement System Building 5, Room 148 Capitol Complex Charleston, WV 25305 304/348-2031	Lewis N. McManus Executive Secretary	403 (mkt.)			186.8 (mkt.)
State of Wisconsin Investment Board 244 West Washington Avenue Madison, WI 53702 608/266-2381	Kenneth E. Codlin Executive Director	5,714 (retirement system only)	2,030 (mkt.)		613 (par)
Wyoming Retirement System Third Floor Barrett Building Cheyenne, WY 82001 307/777-7691	Jeff Gardner Deputy Director	318 (bk.)			130 (bk.)

Corporate bonds (in millions $)	Mortgages (in millions $)	Other real estate (in millions $)	Cash and short-term securities (in millions $)	Other (in millions $)	Reporting date	Investment advisors
1,512	483		251		5/31/81	Mellon Bank; Alliance Capital Management Corp.; Miller, Anderson & Sherrerd; The Philadelphia Savings Fund Society
132.0			1.5	65.3	6/30/80	Internal administration
2,202.2					12/31/80	Jamison, Eaton & Wood
.83			36.5	.1	6/30/81	Internal administration; Eagle Management & Trust Co.; Dreman, Gray and King
562	7		104		3/31/81	Internal administration
687			279		5/31/81	E. F. Hutton
1,682 (bk.)	49 (bk.)		117 (bk.)		6/30/81	Internal administration; Doran, Paine & Lewis (non-discretionary)
382	20	61	99		6/30/81	Capital Consultants, Eagle Management & Trust Co., Smoot Knoche & Co., Trust Co. of the West, Value Line Asset Management
28 (mkt.)	10 (mkt.)		22 (mkt.)	5 (mkt.)	6/30/81	Loomis, Sayles & Co.; Brundage, Story & Rose; Colonial Management Associates
9 (mkt.)	12.6 (mkt.)		29.9 (mkt.)	23.1 (mkt.)	6/30/81	Colonial Management Associates; Common stock: Delaware Investment Advisers
68.8		21	157	539.5	6/30/81	Massachusetts Financial Services Co., Bank of New York, MacKay-Shields Financial Corp., Putnam Capital Management
829.4 (bk.)	829.4 (bk.)		276.5 (bk.)	276.5 (bk.)	6/30/81	Fixed income and passive equity: internal administration; Active equity: Batterymarch Financial Management Corp.; Columbia Management Co.; Eagle Management & Trust Co.; Pringle, Flinn, Elvins & Donahoe; Loomis, Sayles & Co.; Torray and Clark
198.7 (mkt.)			17.5 (mkt.)		6/30/81	Internal administration; Loomis, Sayles & Co.
2,021 (par)	197 (outstanding principal balance)	13 (bk.)	620	217 (par)	6/30/81	Internal administration
173 (bk.)		7 (bk. — SBA guaranteed)	8 (bk.)		5/31/81	Alliance Capital Management Corp.